ENVIRONMENTAL PRIORITIES INITIATIVE
PRELIMINARY ASSESSMENT

Purpose: RCRA Preliminary Assessment

Site: Hughes Aircraft Company
Electron Dynamics Division and
Microwave Products Division
3100 West Lomita Boulevard
Torrance, California 90509
Los Angeles County

Site EPA ID Number:	CAD041666819
TDD Number:	F9-9004-021
Program Account Number:	FCA1466RAA
FIT Investigators:	John Chester Juliet Shin
Date of Inspection:	May 7, 1990
Report Prepared By:	John Chester J.C.
Through:	Tara Abbott TLA
Report Date:	August 10, 1990
FIT Review/Concurrence:	Karen Jadel 8/10/90
Submitted To:	M.V. Cummings, Site Assessment Manager, EPA Region IX

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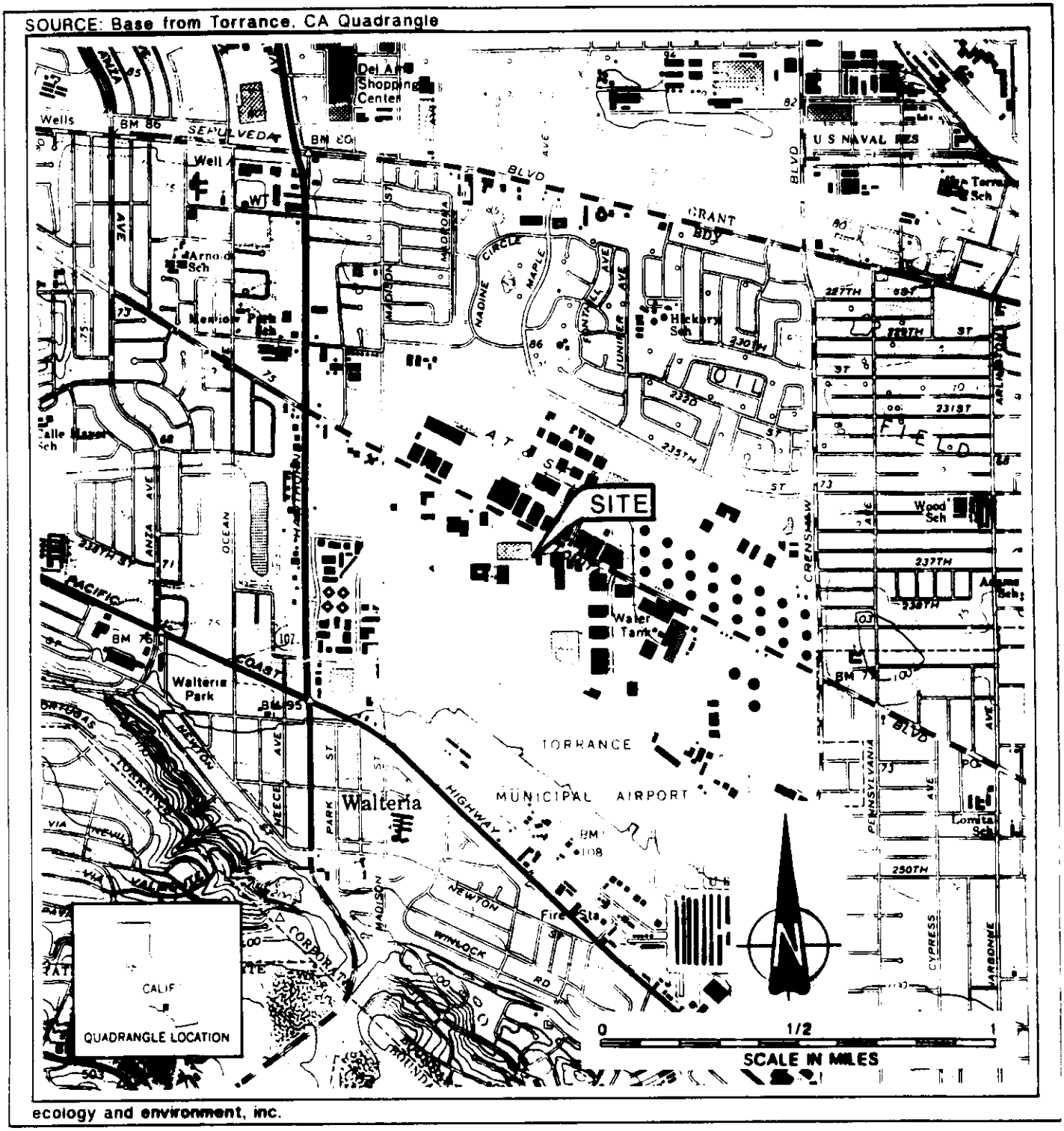

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Figure 1 SITE LOCATION MAP
HUGHES AIRCRAFT COMPANY
3100 WEST LOMITA BLVD.
TORRANCE, CALIFORNIA

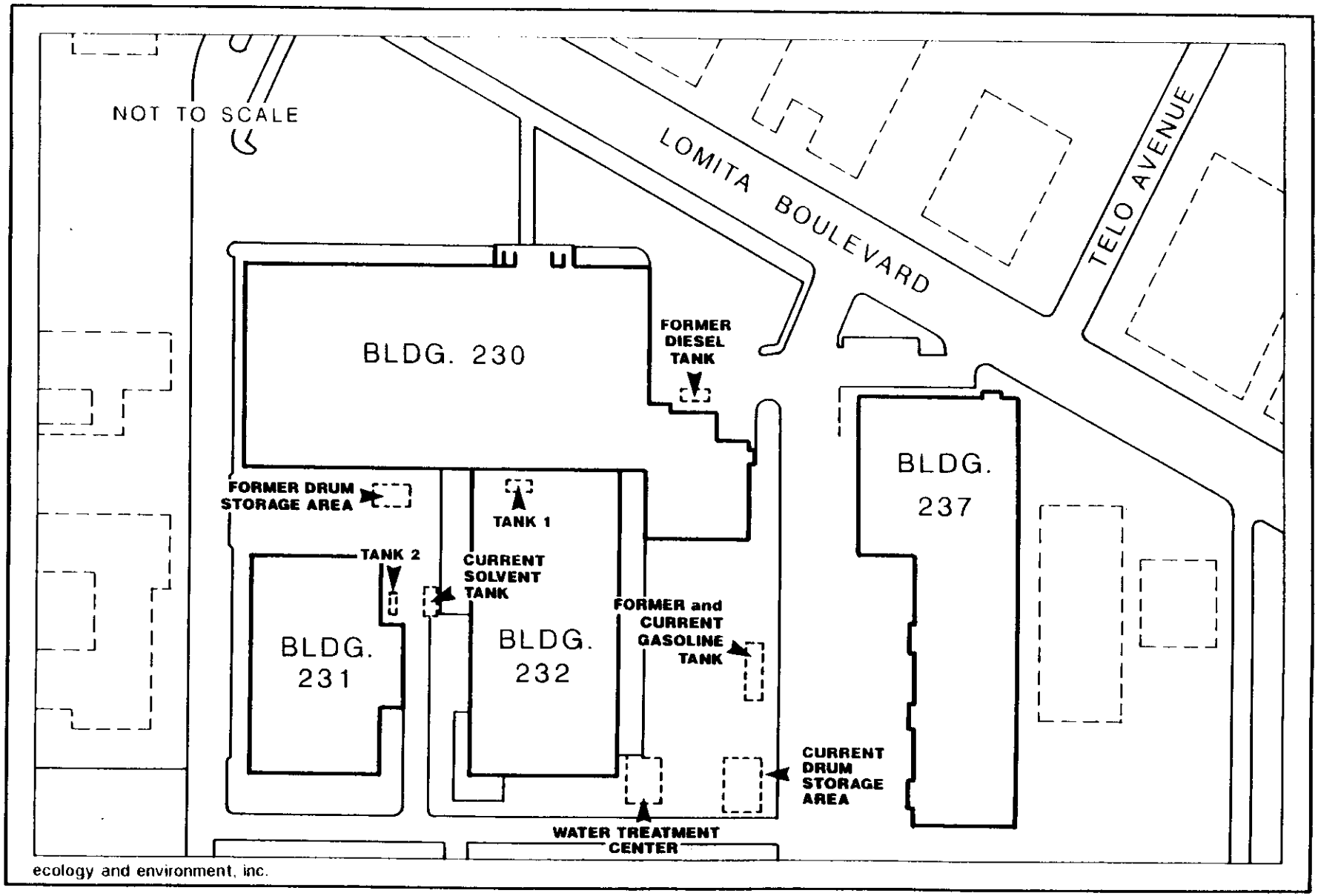

Figure 2

FACILITY MAP - HUGHES AIRCRAFT COMPANY
Torrance, California

2.2.1 HISTORICAL

Hazardous substances, primarily solvents, generated at the site were pumped or poured into two underground storage tanks from 1967 to 1983. These substances were stored in the tanks until collected for off-site disposal at an appropriate licensed waste disposal site. In 1983 both tanks were removed and transported off site for disposal (3,4). The larger tank (Tank 1) had a 3,000-gallon capacity and was located immediately south of building 230 at the interface of what is now the location of buildings 230 and 232. The smaller tank (Tank 2) had a 500-gallon capacity and was located immediately east of building 231. Both underground storage tanks were constructed of steel. Tank 1 was installed in 1967, and Tank 2 was installed in 1974 (5).

A drum storage area was located between buildings 230, 231, and 232 from 1967 to 1983. The drum storage area consisted of a cement pad with a raised lip to contain liquids. Hazardous substances stored at this location included acid and base rinses, cyanide waste, and chrome waste. The drum storage area was demolished in early 1983 for the construction of Building 232 and a courtyard (3).

2.2.2 CURRENT

Since 1984 all waste solvents have been pumped to a below-grade, concrete-vaulted, storage tank. The tank has a capacity of 2,000 gallons and is located west of Building 232. The vaulted area has an oxygen meter and leak detection sensor, both of which are connected to an audio alarm at the maintenance department. Access points to the tank vault are raised to prevent surface water run on. In addition, the vault floor is sloped toward a 1 cubic-foot sump (2).

From 1984 to the present, hazardous substances have been stored at the current drum storage area located southeast of Building 232. This area is a 2,000 square-foot concrete pad with a surrounding 6-inch concrete berm and roof. It has designated bays for drums containing compatible substances; incompatible substances are stored in separated bays. All bays have floors that slope towards a shallow sump at the rear of each bay. The entire storage area is surrounded by a fence and is under 24-hour surveillance (2,3).

In 1985, a wastewater treatment center was constructed to manage rinse water generated from on-site processes. The treatment center consists of a four phase treatment system: chrome reduction, cyanide oxidation, equalization and neutralization, and heavy metal removal (2). The center receives waste rinse water from the following Buildings: 230, 231, and 237. Waste liquids are plumbed directly from sources inside the respective buildings to pretreatment storage tanks located at buildings 230, 231 and 237. From the pretreatment tanks, the waste liquids flow directly to the wastewater treatment center. The system is a continually flowing system; wastes are not stored or accumulated in the tanks (3).

3. APPARENT PROBLEM

The problem at the Hughes Aircraft Company site is contaminated subsurface soil, which appears to have originated from the two leaking underground waste solvent storage tanks (4). Four test holes were drilled to determine whether the tanks had leaked and to investigate potential soil contamination in the immediate vicinity of the tanks. Three holes were drilled at Tank 1, and one hole was drilled at Tank 2. Soil samples were collected to a maximum depth of 49 feet below ground surface (bgs). Several volatile organic compounds were detected in the subsurface soils at concentrations ranging from 22 micrograms per kilogram (µg/kg) to 440,000 µg/kg (see Section 5.1) (5).

Because of site improvements, including the construction of Building 231, both tanks were removed in 1983; however, contaminated subsurface soil remains on site. No soil remediation has been conducted by Hughes and was not requested by either overseeing regulatory agency: the Torrance Fire Department or the RWQCB (4). Building 231 now overlies the location where Tank 1 was located, and a landscaped courtyard has been installed over the area where Tank 2 was located (3). Groundwater collected for analyses from on-site wells, not in conjunction with the removal of the two waste solvent tanks, did not indicate the presence of volatile organic compounds (3,4).

Two fuel tanks, one 10,000-gallon tank containing unleaded gasoline and one 480-gallon tank containing diesel fuel, have also been removed from the Hughes site. In 1986, the Torrance Fire Department issued a permit for Hughes to abandon a 10,000-gallon unleaded fuel tank, which had been in the subsurface soil for 7 years. There was no apparent discharge of gasoline originating from the 10,000-gallon tank. A new double wall fiberglass tank, complete with leak detection and monitoring equipment systems, was installed and permitted by the RWQCB, SCAQMD, and Torrance Fire Department (6,7).

In 1985, the 480-gallon diesel fuel tank was removed from the Hughes site. A series of soil samples were collected from beneath and around the tank. Analytical results of these samples indicated the presence of petroleum hydrocarbons. Subsequently, the contaminated soil was removed and disposed of off site (6).

Sections 101 (14) and (33) of CERCLA exclude petroleum (including diesel fuel or gasoline) from consideration as a CERCLA hazardous substance. Given this exclusion, the fuel leak(s) and subsequent contaminated soil cannot be evaluated as a hazardous substance in this investigation (8).

There do not appear to be any problems associated with the current operations at the Hughes facility. No violations were issued by DOHS at the most recent inspection in April 1990. (See Section 4 for other regulatory agency involvement.) All hazardous materials storage and handling appear to be adequately contained to prevent releases to the air, soil, and groundwater (3,9).

4. REGULATORY INVOLVEMENT

DOHS is the lead agency at this site under RCRA. The facility submitted a notification of hazardous waste activity on August 18, 1980; it is unknown when the RCRA Part A permit application was submitted. The facility operates under Interim Status and is listed as a large quantity hazardous waste generator, treatment, and storage facility in the RCRA database as of May 8, 1990. Hughes also is a licensed hauler of hazardous materials; however, all transport of hazardous materials for recycling or disposal from this site is primarily conducted by an outside licensed hauler (3).

Hughes has submitted its RCRA Part B permit application; however, the application cannot be accepted by DOHS until the property owner, Bard College, signs the permit. Bard College acquired the Hughes property as a donation and will not sign the Part B permit application. Hughes can operate under Interim Status until 1991 (2,3,8,9).

RWQCB and the Torrance Fire Department oversaw the removal of underground fuel and solvent tanks at Hughes (4). In addition, RWQCB regulated the operation of two injection wells that operated as part of the facility's water cooling system prior to 1985 (3).

SCAQMD has issued permits for tanks and process areas at the facility (refer to Appendix B). A violation was issued to Hughes in 1984 for a faulty vapor recovery system on its gasoline tank. The system has since been replaced and is operating correctly. No other violations have been issued (10).

The Los Angeles County Sanitation District No. 13 has issued discharge permits for the wastewater treatment center and cooling tower blow down under permit numbers 10961 and 2387, respectively (3). The sanitation district regularly monitors effluent flow and quality. Hughes was issued a notice of violation in 1988 for discharging methylene chloride to its water treatment system, as well as a release of cadmium in excess of permit requirements. Both effluent anomalies were corrected (3).

The Hughes Company in Torrance is not currently listed on the California Bond Expenditure Plan (17). There is no current regulatory agency involvement regarding volatile organic compounds detected in on-site subsurface soils.

5. HRS FACTORS

The Hazard Ranking System (HRS) is a scoring system used to assess the relative threat associated with actual or potential releases of hazardous substances from sites. It is the principal mechanism EPA uses to place sites on the National Priorities List (NPL). EPA has proposed revisions to the HRS, pursuant to the Superfund Amendments and Reauthorization Act of 1986 (SARA). FIT has evaluated the following proposed revised HRS factors relative to this site.

5.1 WASTE TYPE AND QUANTITY

The types of waste generated at Hughes include solvents, corrosives, petroleum-based oils, cyanide plating solutions, and heavy metals. These wastes are currently stored in either 55-gallon drums at the drum storage area or the vaulted below-grade storage tank, or processed at the wastewater treatment center (2).

From 1984 to the present, hazardous substances have been stored at the current drum storage area located southeast of Building 232. This area is a covered, 2,000 square-foot concrete pad with a surrounding 6-inch concrete berm. It has designated bays for drums containing compatible substances; incompatible substances are stored in separated bays. All bays have floors that slope towards a shallow sump at the rear of each bay. The entire storage area is surrounded by a fence and is under 24-hour surveillance (2,3).

Since 1984 all waste solvents have been pumped to a below-grade, concrete-vaulted, storage tank. The tank has a capacity of 2,000 gallons and is located west of Building 232. The vaulted area has an oxygen meter and leak detection sensor, both of which are connected to an audio alarm as well as the maintenance department. Access points to the tank vault are raised to prevent surface water run on. In addition, the vault floor is sloped toward a 1 cubic-foot sump (2).

The wastewater treatment system is composed of six tanks. The following three tanks work separately to treat specific waste types:

1) A 6,000-gallon equalization tank treats acid and alkaline wastes;

2) A 1,200-gallon oxidation tank treats cyanide wastes; and

3) A 560-gallon reduction tank treats chrome wastes.

The following three tanks work in series to treat the combined effluent of the first three tanks:

4) A 6,000-gallon neutralization tank neutralizes the pH of the wastes;

5) A flocculation/clarification tank of unknown volume precipitates heavy metals out of solution resulting in a metal sludge. The remaining liquid effluent is monitored and discharged to the sewer system; and

6) A 1,000-gallon tank holds the metal sludge before processing at the filter press. The filter press condenses and de-waters the sludge, and the resulting product is a dense, dry material referred to as filter cake.

In summary, the output from the wastewater treatment center consists of both solid and liquid wastes. The treated liquid wastes are discharged to the sanitary sewer system (under Los Angeles County Sanitation District

No. 13 Permit No. 10691). The treated solid wastes are stored in a 13 cubic-yard, covered, roll-off bin until transported off site by a licensed hauler, and disposed of at the Class I landfill in Kettleman Hills, California (2,3).

The uncontained hazardous substances at the site appear to have originated from leaks in one or both underground waste solvent storage tanks. Both tanks were removed in 1983; however, contaminated subsurface soil remains on site (4). Building 231 now overlies the location where tank 1 was located, and a courtyard has been landscaped where tank 2 was located (3).

From 1981 to 1983, the principal organic compounds detected in samples from wastes stored in Tank 1 were acetone, methanol, tetrachloroethylene, and trichloroethylene (TCE). TCE was the principal compound detected in samples from Tank 2. Trace metals detected in samples from Tank 1 and 2 were lead, chromium, and zinc. It is unknown what the composition of the tank contents were prior to December 1981 (5).

Table 1 lists the organic compounds detected in subsurface soil underlying tank no. 1 (5).

Table 1

SUBSURFACE SOIL SAMPLES
(Sample depth in feet, concentrations in µg/kg)

Organic Compound	5	8	22	31	39	49
Acetone	82	64	ND*	520	30	ND
Chlorobenzene	ND	ND	ND	740	ND	ND
Chloroform	22	21	25	ND	ND	23
1,1-Dichloro-ethylene	ND	ND	37	1,200	ND	ND
Ethylbenzene	ND	ND	ND	610	ND	ND
Methylene Chloride	54	ND	59	340	72	ND
Tetrachloro-ethylene	780	300	8,600	440,000	62	69
Toluene	ND	ND	550	1,200	ND	ND
1,2-trans-Dichloro-ethylene	570	ND	23	ND	ND	ND
1,1,1-Trichloro-ethane	ND	ND	670	18,000	ND	ND
Trichloro-ethylene	840	26	260	19,000	ND	39

* ND = Not Detected

Analyses of subsurface soil samples collected at Tank 2 at 30 feet bgs detected tetrachloroethylene and methylene chloride at 270 and 28 µg/kg, respectively (5).

5.2 GROUNDWATER

The Hughes Aircraft Company site is located on the Torrance Plain within the West Coast Groundwater Basin. The stratigraphy within 2 miles of the Hughes site, from the youngest to the oldest deposits, is comprised of

the following: dune sands and recently deposited alluvium, the Lakewood Formation (Bellflower aquitard and Gage aquifer), the San Pedro Formation (Lynwood, Silverado, Sunnyside aquifers), and the Pico Formation (12).

The Gage and Lynwood aquifers are used as local drinking water sources. Within 2 miles of the Hughes site, the Lynwood aquifer is interconnected with the overlying Gage aquifer. The low permeability Bellflower aquitard that impedes percolation from the ground surface to the Gage aquifer is not continuous within 2 miles of the Hughes site (12). Therefore, surface water or contaminants can migrate to the Gage and Lynwood aquifers.

The closest municipal supply well to the site is the City of Torrance well number 4. This well is located 1.75 miles northeast of the Hughes site and pumps to an interconnected groundwater system serving approximately 25,000 accounts or 100,000 people (13). Also, Dominguez Water Company well number 75, located approximately 4 miles southeast of the site, pumps to an interconnected system serving approximately 100,000 people (11). Both wells have perforated intervals in the Gage aquifer, approximately 200 feet bgs (13). Groundwater movement in the Gage Aquifer is not well defined, movement in the Lynwood aquifer is generally to the east (11,12).

There are three wells on site that were previously used as an industrial water cooling system. One well pumped cool water from the ground to water-cooling condensers, the resulting heated water was returned to the earth via two injection wells for disposal. The two injection wells are no longer used and the one industrial supply well is for standby purposes only (3).

The heated water leaving the facility was treated with polyphosphate zinc to help reduce the build-up of algae in the pipes of the cooling condensers. The water cooling system operated under RWQCB approval. Groundwater samples collected from the wells were analyzed for zinc and coliform. The facility submitted quarterly groundwater reports to the RWQCB. Throughout the duration of the sampling program, concentrations of these constituents were below State of California action levels (3).

Hughes closed the wells serving the cooling water system in 1985 because of problems with algae build-up. RWQCB certified the system clean and no further sampling was required. In 1986, the Los Angeles County Sanitation District collected samples from one of the on-site wells and analyzed them for a broad spectrum of constituents, including volatile organic compounds. The analytical results indicated no elevated levels of chemical constituents (18). The samples were collected in response to a characterization study of the Palos Verde Landfill (CAT000624320) located 2 miles from the site (3).

Two of the three on-site wells are of similar construction. Two wells are approximately 500 feet deep, with perforated intervals from 300 to 500 feet bgs (14). The third on-site well was installed prior to 1967; the specifics for this well are not known.

Soil underlying the site is comprised of sand and silty sand to a depth of 85 feet bgs (6). Depth to groundwater underlying the site is approximately 107 feet bgs (14). The net annual precipitation for the Torrance area is 3.85 inches (15,16).

There is a moderate to high potential for a release of hazardous substances from the site to groundwater. The intervening stratigraphy from ground surface to the water table is comprised of interbedded layers of sand and silty sand (6). Contaminated soil, apparently originating from the two on-site solvent tanks, has been documented at the Hughes site at approximately 50 feet bgs (5). Building 232 was constructed over the area where Tank 1 was located, and a landscaped area overlies the area where Tank 2 was located (3).

5.3 SURFACE WATER

There are no surface water considerations at this site because there are no surface water bodies within 2 miles of the Hughes facility (1).

5.4 AIR

There are no inadequately contained hazardous substances available for release to the air. All air releases from the Hughes site are permitted by the SCAQMD (see Appendix B). In addition, during the site tour it was noted that all drums were sealed, no drums containing hazardous substances were left uncovered (3). Uncontained hazardous substances are located in subsurface soils greater than 2 feet below ground surface. The uncontained hazardous substances were apparently released from two underground storage tanks which are now removed. Building 232 currently overlies the area where Tank 1 was located, and a landscaped area overlies the area where Tank 2 was located (5).

5.5 ON-SITE

There appears to be no inadequately contained hazardous substances available for on-site exposure. Uncontained hazardous substances are located in subsurface soils, greater than 2 feet bgs (see Section 5.1). In addition, the facility perimeter is surrounded by a fence and is under 24-hour surveillance.

6. SUMMARY OF FIT INVESTIGATIVE ACTIVITIES

E & E FIT conducted an on-site reconnaissance visit on May 8, 1990. The visit consisted of an interview with several Hughes engineers and health and safety managers. The interview was followed by a facility tour. Pictures were not taken at the request of Hughes personnel (3). A report of the information gathered during the reconnaissance visit is included in Appendix A.

7. EMERGENCY RESPONSE CONSIDERATIONS

The National Contingency Plan [40 CFR 300.415(b)(2)] authorizes the Environmental Protection Agency to consider emergency response actions at those sites which pose an imminent threat to human health or the environment. There is no apparent need for emergency response at the Hughes site at this time because of the following: all hazardous substances appear adequately contained; and on-site contaminated soil is located greater than 2 feet bgs. Furthermore, the site is adequately secured from public access (3,5).

8. SUMMARY OF HRS CONSIDERATIONS

The Hughes Aircraft Company Electron Dynamics Division and Microwave Products Division site is located at 3100 West Lomita Boulevard in Torrance, California. The Hughes Aircraft Company is a hazardous waste generator and an active treatment and storage facility. Hazardous substances are currently contained in any of the three following systems: below-grade, vaulted storage tank; drum storage facility; or wastewater treatment center. Each system currently has adequate containment for preventing unauthorized releases to the environment.

The apparent problem at the Hughes Aircraft Company site is the historic use of two underground storage tanks for containing waste industrial solvents. In 1983, both tanks were removed; however, subsurface soils contaminated with volatile organic compounds remain on site. In 1984, on-site improvements, including building construction and landscaping, occurred over the area where the contaminated soil is located.

The closest municipal supply well is located 1.75 miles northeast of the Hughes Aircraft Company site. This well pumps to an interconnected groundwater well system serving approximately 100,000 people. Currently, all hazardous substances stored on site appear to have adequate containment.

The Hughes Aircraft Company is regulated by the following agencies: the California Department of Health Services, the Regional Water Quality Control Board, the Los Angeles County Sanitation District, South Coast Air Quality Management District, and the City of Torrance Fire Department.

The significant factors of the proposed revised Hazard Ranking System associated with the Hughes Aircraft Company site are:

- Documented soil contamination at 50-feet below ground surface originating from former underground, waste solvent tanks;

- Moderate to high potential for hazardous substances located in subsurface soils to migrate to the groundwater, which is located 50 feet deeper than the lowest level of contamination;

- o Large population using groundwater for drinking purposes within 1.75 miles of the site; and
- o No regulatory agency invlovement regarding the presence of contaminants in soil underlying the site.

9. EPA RECOMMENDATION

	Initial	Date
No Further Action under CERCLA	[illegible]	8/30/90
High-Priority SSI under CERCLA		
Medium-Priority SSI under CERCLA		
Further Action Plan under RCRA		

Notes:

REFERENCES

1. U.S. Geological Survey, map of Torrance, California, 7.5-minute Quadrangle, 1961 (Photorevised 1981).

2. Hughes Aircraft Company, Operation Plan for Hazardous Waste, November 20, 1985.

3. Hughes Aircraft Company Personnel, and John Chester and Juliet Shin, E & E FIT, reconnaissance interview and observation report, May 8, 1990.

4. Mahlow, Paul, Hughes Aircraft Comapany, and John Chester, E & E FIT, telephone conversation, May 24, 1990.

5. Hargis and Montgomery, Inc., "Investigation of Soil Conditions in the Vicinity of Buried Tanks, Hughes Aircraft Company Electron Dynamics Division," June 15, 1983.

6. Hargis and Montgomery, Inc., "Soil Investigation at a Former Underground Tank Location," Hughes Aircraft Company, April 20, 1989.

7. Leighton and Associates, Inc., to John McTaggart, Hughes Aircfaft Company, transmittal, September 26, 1986.

8. U.S. Environmental Protection Agency, NPL Listing Issue Paper, "What Exactly Does a the CERCLA Petroleum Exclusion Cover ?" March 13, 1989.

9. Berman, Clarence, California Department of Health Services, and John Chester, E & E FIT, telephone conversation, June 29, 1990.

10. Christopher, Sharleen, South Coast Air Quality Management District, and John Chester, E & E FIT, telephone conversation, May 15, 1990.

11. Whitthoft, Terry, Dominguez Water Company, and Kate Dragolovich, E & E FIT, telephone conversation, August 8, 1989.

12. Ecology and Environment Inc., "Geology of Torrance, California Vicinity," prepared by Kelly Hranac, for the U.S. Environmental Protection Agency, May 31, 1989.

13. Shaick, Chuck, City of Torrance Water Department, and John Chester, E & E FIT, telephone conversation, May 5, 1990.

14. California Department of Water Resources, Water Well Drillers Report, Number 103031, owner: Hughes Aircraft Company, May 11,1976.

15. Federal Register, Vol. 53 No. 247, Proposed Rules, 52029-52030, December 23, 1988.

16. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Environmental Satellite Data and Information Service, National Climatic Data Center, Comparative Climatic Data for the United States Through 1985, Nashville, TN.

17. Health and Welfare Agency, Department of Health Services, toxic Substances Control Division, Expenditure Plan For The Hazardous Substance Cleanup Bond Act Of 1984, Volume 1, revised January 1988.

18. McTaggart, John, Hughes Aircraft Company Microwave Products Division, to John Chester, E & E FIT, letter, July 27, 1990.

APPENDIX A

PA/SI CONTACT LOG

Facility Name: Hughes Aircraft Company
Facility ID: CAD041666819

Name	Affiliation	Phone #	Date	Information
Chuck Shaick	City of Torrance Water Dept.	213-618-2856	5/5/90	See Contact Report.
Charlene Christopher	South Coast Air Quality Mgt. District	818-572-2117	5/15/90	See Contact Report.
Paul Mahlow	Hughes Aircraft Co.	213-517-6813	5/24/90	See Contact Report.
Clarence Berman	DHS - Toxics Control Div.	213-590-5924	6/29/90	See Contact Report.

CONTACT REPORT

AGENCY/AFFILIATION: City of Torrance		
DEPARTMENT: Water Department		
ADDRESS/CITY:		
COUNTY/STATE/ZIP:		
CONTACT(S)	**TITLE**	**PHONE**
1. Chuck Shaick	Water Engineer	213-618-2856
2.		
E & E PERSON MAKING CONTACT: John Chester		**DATE:** 5/5/90
SUBJECT: Groundwater Use		
SITE NAME: Hughes Aircraft Company		**EPA ID#:** CAD041666819

Torrance municipal supply wells numbers 4 and 5 are located approximately 1.75 miles from the site.

These wells are approximately 300 feet deep and perforated at 210 feet below ground surface.

The wells pump groundwater into a system blended with other groundwater and imported surface water.

City of Torrance has approximately 25,000 accounts which equal about 100,000 people.

CONTACT REPORT

AGENCY/AFFILIATION:	South Coast Air Quality Management Dist.	
DEPARTMENT:	Public Affairs	
ADDRESS/CITY:		
COUNTY/STATE/ZIP:	Orange, California	
CONTACT(S)	**TITLE**	**PHONE**
1. Charlene Christopher		818-572-2117
2.		
E & E PERSON MAKING CONTACT: John Chester		**DATE:** 5/15/90
SUBJECT: Permit Violation		
SITE NAME: Hughes Aircraft Company		**EPA ID#:** CAD041666819

Hughes had a permit violation in 1984. The violation was in regard to a faulty vapor recovery system for their gasoline tank. No other violations have been issued against Hughes for nonpermitted air releases.

jc/hac/clcr-recon

CONTACT REPORT

AGENCY/AFFILIATION:	Hughes Aircraft Company	
DEPARTMENT:	Environmental Health and Safety	
ADDRESS/CITY:	Torrance	
COUNTY/STATE/ZIP:	Los Angeles County, California 90509-2999	
CONTACT(S)	**TITLE**	**PHONE**
1. Paul Mahlow	Manager	213-517-6813
2.		
E & E PERSON MAKING CONTACT: John Chester		**DATE:** 5/24/90
SUBJECT: Underground storage tanks		
SITE NAME: Hughes Aircraft Company		**EPA ID#:** CAD041666819

The two underground solvent storage tanks were removed in 1983 because of site improvements, including the construction of Building 231. Tank removal procedures are discussed in the Hargas and Montgomery report. The removal was overseen by the Torrance Fire Department and the Regional Water Quality Control Board (RWQCB). The RWQCB inspected the tanks, and there was no call for soil remediation even though soil samples collected in the area where the tanks were located documented contaminated soil. During the time when the tanks were removed, it was a formative period for the RWQCB; the agency was interested in groundwater samples (which were clean) not the soil. The RWQCB contact during the tank removal was a gentleman by the name of Bakarowsky.

IT Corporation pulled the tanks, and Hargas and Montgomery were responsible for the soil characterization and hydrogeology study (see report in file).

CONTACT REPORT

AGENCY/AFFILIATION:	California Department of Health Services	
DEPARTMENT:	Toxics Substances Control Division	
ADDRESS/CITY:		
COUNTY/STATE/ZIP:	Los Angeles County, California	
CONTACT(S)	**TITLE**	**PHONE**
1. Clarence Berman		213-590-5924
2.		
E & E PERSON MAKING CONTACT: John Chester		**DATE:** 6/29/90
SUBJECT: Site inspection		
SITE NAME: Hughes Aircraft Company		**EPA ID#:** CAD041666819

The State's most recent inspection was in April 1990. The California Department of Health Services did not issue any citations for violation of the facility's Interim Status permit.

Hughes cannot get a permit for operations because the landlord, Bard College, will not sign the permit. The Interim Status Permit expires in 1991, at that time Hughes will likely cease operations.

Berman considers the facility to be a well run, clean operation.

jc/hac/clcr-recon

CONTACT REPORT

AGENCY/AFFILIATION:	California Department of Water Resources	
DEPARTMENT:	Water Master Service	
ADDRESS/CITY:	P.O. Box 6593	
COUNTY/STATE/ZIP:	Los Angeles California 90055	
CONTACT(S)	**TITLE**	**PHONE**
1. Rudy Angerbauer	Associate Engineer	213-620-4204
2.		
E & E PERSON MAKING CONTACT: John Chester		**DATE:** 4/23/90
SUBJECT: Wells within 4 miles of site		
SITE NAME: Hughes Aircraft Company		**EPA ID#:** CAD041666819

In the area of the site, the depth to groundwater ranges between 60 to 100 feet bgs.

Groundwater drinking supplies are from wells tapped in the Silverado aquifer.

City of Torrance stopped using local groundwater because of seawater intrusion.

Other contacts are:

Evelyn Tomkins - 213-620-5365
John G. Joham - 213-927-2611
George Farag - LA County Flood Control Dist.

SITE RECONNAISSANCE INTERVIEW AND OBSERVATIONS REPORT

Ecology and Environment, Inc.		
Field Investigation Team (FIT)		
160 Spear Street, Suite 1400		
San Francisco, California 94105		
(415) 777-2811		
E & E PERSON(S) CONDUCTING INTERVIEW AND MAKING OBSERVATIONS:		
John Chester		
FACILITY REPRESENTATIVE(S):	**TITLE:**	**PHONE:**
Jim Weaver	Safety,Health & Envi. Affairs	213-517-6579
Lloyd Bartlett	Engineering and Construction	213-517-5262
John McTaggart	Facility Operations	213-517-5867
Art Lenox	Safety,Health & Envi. Affairs	213-517-5035
Jim Cain	Senior Facility Engineer	213-517-6790
David Lange	Facilities Project Engineer	213-517-5423
SITE NAME: Hughes Aircraft Company		**DATE:** 5/8/90
CITY/STATE: Torrance, California		**EPA ID#:** CAD041666819

The following information was obtained during the interview and during a telephone conversation Jim Weaver and Art Lenox on July 9, 1990.

The facility began operating in 1967. Prior to this date, the area was a wetland. Eaton National Steel Co. had a warehouse adjacent or nearby to the current location of the Hughes site. The following agencies regulate activities at the Hughes site: the California Department of Health Services (DOHS), the Regional Water Quality Control Board (RWQCB), the South Coast Air Quality Management District, Torrance Fire Department, and the Los Angeles County Sanitation District Number 13.

From 1967 to 1983, solvent wastes were pumped or poured into a 3,000-gallon solvent tank. From 1973 to 1983 a 500-gallon waste solvent tank was utilized to store waste until collected. The waste solvent from both tanks was collected by Oil and Solvent Resource Company (currently BKK) for disposal or recycling. In 1983, both tanks were removed to make room for the construction of Building 232. The larger tank, Tank 1, was located at what is now the interface of

Buildings 230 and 232 (see map). Hazardous wastes generated at Hughes have generally remained constant since the facility began operations in 1967. The 500-gallon tank (tank 2) was located on the northeast side of Building 231.

From 1984 to the present, hazardous substances have been stored at the current drum storage area located southeast of Building 232. This area is a covered, 2,000 square-foot concrete pad with a surrounding 6-inch concrete berm. It has designated bays for drums containing compatible substances; incompatible substances are stored in separated bays. All bays have floors that slope towards a shallow sump at the rear of each bay. The entire storage area is surrounded by a fence and is under 24-hour surveillance.

The Hughes facility operates under an Interim Status permit. The Interim Status permit was renewed in 1985 and will expire in 1991. A RCRA Part B Permit application (hazardous waste work plan) has been completed and reviewed by DOHS for approval; however, the current landlord, Bard College of New York, will not sign the document. The facility cannot receive a RCRA Part B Permit until the legal property owner signs. The facility will continue to operate until 1991. DOHS last inspected the facility in April 1990, the officer conducting the inspection was Armando Cabaracas (744-3223). No citations for improper handling of hazardous materials were issued to Hughes.

There are three wells located on site. These wells were used for the facility water cooling system. One well (located near the southeast corner of Building 231) was used to supply water to "chiller condensers". After being used in the cooling processes, the water would be returned at a maximum of 90°F to one or two on-sites injection wells depending on the volume of water being returned. The water would be pumped through underground piping to the injection wells located in the southern section of the property, near the driveway at Skypark Drive and in the south parking lot. The earth was used as a heat sink.

The heated water leaving the facility was treated with polyphosphate zinc to help reduce organic algae build-up in the pipes of the chiller condensers. The water cooling system operated under RWQCB approval. Hughes submitted quarterly groundwater analyses from the on-site wells to the RWQCB. Constituents analyzed for were zinc and coliform. During the sampling program, concentrations of these constituents were below State of California action levels.

Hughes closed the wells in 1985 because of problems with organic algae build-up. The RWQCB certified the system clean and no further sampling was required. In 1988, the LA County Sanitation District collected samples from one of the on-site wells and analyzed the samples for a broad spectrum of constituents including volatile organic compounds. The analytic results indicated no elevated levels of chemical constituents. The samples were collected in response to a characterization study of the Palos Verde landfill located 2 miles from the site.

Currently, cooling towers are used to cool facility water. The cooling tower water is discharged to the sanitary sewer system under permit issued by the LA County Sanitation District.

Current, on-site hazardous materials management systems include the following:

- o below-grade, vaulted, waste solvent storage tank;
- o drum storage for waste materials and products; and
- o a water treatment center for treating corrosive, cyanide, chrome, and heavy metal containing rinse waters.

On the north side of Building 231 there is a pretreatment collection tank for acids and bases. The tank is 2,000 gallons, below grade, and vaulted. Wastes from this tank are continually pumped to a collection tank at Building 230. This tank is aboveground with a 6" berm. The tank is made of polypropylene and has a capacity of 2,000 gallons. Also at this location is a below grade, vaulted cyanide, rinse water tank. The tank has a 900-gallon capacity. Fluids from both of these tanks at Building 230 are pumped to the wastewater treatment facility for treatment prior to discharge to the sanitary sewer (see flow chart of waste water treatment center).

The Hughes Aircraft Company at Torrance is divided into two divisions: 1) the Microwave Products Division, and 2) the Electron Dynamics Division. Both divisions manufacture and process electronic components for the aerospace and defense industries. The Microwave Products Division makes microwave integrated circuits (i.e., solid state devices). The Electron Dynamics Division makes a Traveling Wave Tube (i.e., a microwave amplifier). The specific processes for the production lines are intricate and complex.

The following observations were made during the site reconnaissance visit:

E & E FIT members Juliet Shin and John Chester conducted a walk-through tour of the facility after the interview. The tour began with observations of the various work areas in Buildings 230 and 231. FIT did not enter any rooms but were able to view activities through windows. All operations appeared to be clean and orderly.

FIT went out side to look at the pretreatment storage tanks. All areas where tanks were located had adequate cement berms and alarm systems in the event a tank should overflow. Pictures were not taken because Jim Weaver had not received clearance from security. FIT had requested to take pictures prior to conducting the site reconnaissance; however, clearence had not been established upon arrival at the site.

The pretreatment tank at Building 231 is situated below grade in a cement vault. The cement is covered with an epoxy sealant.

At Building 230 the pretreatment area consists of 3 tanks:

- o a 2,000-gallon polypropylene tank containing general acid/alkali rinse waters;
- o a 500-gallon chrome waste collection tank; and
- o a 900-gallon cyanide collection tank.

These tanks are in a cement berm containment area, the cement is coated with a epoxy sealant.

FIT entered the wastewater treatment center. The system appeared to be clean and operating smoothly. The system processes are diagrammed on a flow chart in the CERCLA file.

Within the bermed treatment center is a 6'x6'x6'-sump which can act as an emergency holding basin in the event of a catastrophic spill within the treatment center.

Sludge generated via the wastewater treatment center is processed through a filter press. The resulting filter cake is collected in a 5- to 8-cubic foot bin. The bin is then dumped into a covered, 16-cubic yard roll-off dumpster located adjacent to the treatment center.

All tanks in the wastewater treatment center are fiberglass. Treated wastewater is discharged to the sanitary sewer system under LA County Sanitation District Permit Number 10691. The pH of discharge water is $\geq$6 and generally from 8.5 to 9 pH. Cooling tower blow down (wastewater) is discharged to the sanitary sewer under (LA County Sanitation District) permit number 2387.

The drum storage area is bermed and surrounded by a fence. The area is divided into two major sections, the bulk chemical product storage area, and the hazardous waste storage area. Drums stored within individual bays were on pallets, on top of cement. All drums that contained hazardous substances were sealed. No readings were registered on the HNu, volatile organic vapor meter, at the drum storage area. The drum storage bays are designated for storing compatible materials. All bays have sloped floors that drain to a shallow sump at the rear of each bay. The storage area appeared to be orderly, clean, and well maintained.

After the site visit, FIT drove around the neighborhood. There are several areas of agricultural land within 0.25 miles south of the site. The closest houses are located approximately 0.25 miles northeast of the site.

APPENDIX B

HUGHES AIRCRAFT COMPANY
MICROWAVE PRODUCTS DIVISION

AIR POLLUTION PERMIT FILE AQ1 REVISED 05/04/90 ID_#12911 BLDGS. 230,231,232,246. PAGE 1

AP#	LOCATION	DESC.	MANUFACTURER	MODEL	SERIAL	APPLICATION#	PERMIT_#	EXP DATE	POLLUTANT	HAC#	PM #
D001	230/2728	DEGSR.	CORPANE	VS3ORE	H420788	104886	M30299	11/16/90 FEES	1,1,1,TRI	H420788	19-010
D002	230/1726	DEGSR.	BAR-BLAKSLEE	MLR480	52182	C-08248	M01542	11/16/90 PAID	1,1,1,TRI	H224998	19-002
D004	232/3219A	DEGSR.	EPAC	E-1618-VC	#244	134281	M48353 (M30575)	11/16/90	FREON TA	H216656	19-004
D008 R	230/2524	DEGSR. (DRIER)	DELTA SONICS	TD20-3PH	15477	209110	D10418	11/16/90	FREON TA	FEES TO M.Y. 10/26/89	EVAL
D009	230/1738	DEGSR.	DELTA	PCE-425	D-6087	147404	M54293	11/16/90	111,TRICH		
D013	230/U1	DEGSR.	BAR-BLAKSLEE	AL-16B	D-2812B	104882	M30298	11/16/90	1,1,1,TRI	H224924	19-016
D015	232/3244D	DEGSR.	BARON BLAKES.	MLR120 3RD_CH	51173 IN_YEAR	149639 (134280)	M54877 (M48352)	11/16/90 (M30305)	ALLIED DFX	H220068	19-011
D016	231/1206	DEGSR.	BARON BLAKES.	MLR120	54169	158373 (C-42512)	M58467 (M30307)	11/16/90	TMS PLUS (TMC)	H348226	19-018
D018	232/2223H RELOC.	DEGSR.	BAR-BLAKSLEE	MLR120	54459	104884	M33862	11/16/90	FREON TA	H348606	19-020
D020	231/2039	DEGSR.	BRANSON	SD610-4	Z11523 175	104887	M30300	11/16/90	FREON	H ?	19-021
D024	232/3219	DEGSR.	HOLLIS	201796	U-C2342	134279	M48351 (M35601)	11/16/90	ALLIED DFX	H451468	19-025
D025	230/2764A	DEGSR.	BRANSON	B-125-R	3-0137-03	111340	M37472	11/16/90	1,1,1,TRI	H451399	19-024 *
D028	231/2038A RELOC.	DEGSR. FROM 237	BAR-BLAKSLEE	MLR120	58640	158372 (130531)	M58503 (M48360)	11/16/90	TF	H523654	19-028
D030	232/3244	DEGSR.	EPAC	E-1618-VC	#245	134282	M48354	11/16/90	ALLIED DFX		
D031 N	230/2764A	DEGSR.	CORPANE	#SSSV-2 RD	#861124-02	154818 ANDREW_LEE_572-6150	M60005	11/16/90	TWD602 TF	HB32983	
D033	232/2221	DEGSR.	BARON-BLAKES.	#MLR-120	#60369	162375	D00813	11/16/90	FREON TA	HB53180	
D034	230/2728	DEGSR.	DELTA	DFD-121	D-8031	171029	D03665	11/16/90	FREON EMUL		
SS01	232/2223H	STILL SOL_RECV	BARON BLAKES.	MRR-20	60048	209996 *	SUB 9/7/9 REC_2/13/90	11/16/90	FREON		
BH01	230/ROOF W	BAGHOUSE	SLY	1-PS-5	J-515A	C-37253	M41119	11/16/90	PART.	H ?	06-035
BH02 N	230/1726D	DUST COLL.	UNIVERSAL	#DC200	#6285	#142453 PTC	M60002	11/16/90	PART.		
GS01	232/YARD	GASPUMP	XERXES(DBL. WALL)	10K GAL. (1)NOZ.	#7968	110517	906580	11/16/90	GASOLINE	H ?	TRANSP
BY01	230/2532	BE04-STM LATEST	BERYLLIA STM. TEST_DATA_SUBMITTED_7/86	VARIOUS	DNA	101987 **	M57977	11/16/90	BE04 **	PERMITS	21-001
BY02	230/2532	BEAD-BL	FIBERGLS-6CF	05-018	05-018	158379 **	M57975	11/16/90	BE04 **	RECEIVED	05-018
BY03	230/2532	BEAD-BL	PLASTIC-10CF	05-021	05-021	158380 **	M57976	11/16/90	BE04 **	7/27/87	05-021
AP#	LOCATION	DESC.	MANUFACTURER	MODEL	SERIAL	APPLICATION#	PERMIT_#	EXP DATE	POLLUTANT	HAC#	PM #

HUGHES AIRCRAFT COMPANY
MICROWAVE PRODUCTS DIVISION

AIR POLLUTION PERMIT FILE AQ1 REVISED 05/04/90 ID_#12911 BLDGS. 230,231,232,246 PAGE 2

AP#	LOCATION	DESC.	MANUFACTURER	MODEL	SERIAL	APPLICATION#	PERMIT_#	EXP DATE	POLLUTANT	HAC#	PM #
BB01	230/U-1	BEAD/BL.	KELKO /COMB/W (S.S. WHITE)	J-36C	01800/ (2319)	110515 (COMB.OF BOTH)	M38522	11/16/90	PART.	H220035	05-034
BB04 **	230/1726	BEAD/BL. COU 3/11	EMPIRE NO CHANGE RQD		05-007	122136	M41121	11/16/90	PART.	H339020	05-007
BB05	230/2739	BEAD/BL.	VACU-BLAST	"B"	05-011	122138	M41148	11/16/90	PART.	H88760	05-011
BB06	230/2739	BEAD/BL.	S.S. WHITE		05-003	122141	M41151	11/16/90	PART.	H216513	05-003
BB07	230/2739	BEAD/BL.	S.S. WHITE		05-010	122140	M41150	11/16/90	PART.	H12429	05-010
BB08	230/2739	BEAD/BL.	S.S. WHITE		05-038	122139	M41149	11/16/90	PART.	H216513	05-038
BB09	232/2223D	BLAST-ROOM BH	VARIOUS NOW FOR TORIT	VARIOUS BAG FILT	VARIOUS	132448 ***	M57970	11/16/90	PART.		
BB10	232/2223D	BEAD/BL.	S.S. WHITE	10-CF	H421173 HORIZ.	158374 ***	M57971	11/16/90	PART.	H421173	
BB11	232/2223D	BEAD/BL.	S.S. WHITE	4.8CF	H483736	158375 ***	M57972	" "	"	H483736	
BB12	232/2223D	BEAD/BL.	S.S. WHITE	"K"	GREY BOX	158376 ***	M57973	" "	"		
BB13	232/2223D	BEAD/BL.	S.S. WHITE	"K"	BLUE BOX	158377 ***	M57974	" "	"		
AS01	231/ROOF	SCRUBBER HORIZ.	HARRINGTON	ECH56-5 TP	84-0186 -1	127270	M46864	11/16/90	AQUA REGIA		18-001
AS06	230/ROOF	SCRUBBER HORIZ.	BEV PACIFIC	PSH-408 -4	MORE IN FO	168886 PTC 1/4/89	D17553 2/21/90	11/16/90	ACID/ALK.	SERVES 2728	
CL01	230/2728	CLNG LN.	MESA WEST	NONE	NONE	171344 PTC 7/14	D17554 2/21/90	11/16/90			
CL02	230/1726A	CLNG LN.	MESA WEST	NONE	NONE	187876	SUB.3/24/	11/16/90	$75 CHECK	RULE 219	
OV01 N	230/1726	CURE OVN	BINKS	#BWN-68-7.0	#017868 508	142454	M60003	11/16/90	ORGANICS	REP--LYLE-SMITH	
MC01	230/1726	TANK	NOT AVAIL	NONE	NONE	226483	4/20/90	NEW	METHYLENE CHLORIDE	RULE 219	
PS02 N	230/1726	SPRAY BOOTH	BINKS	PFA-8-7-T-LH	ADD LTR	142452	M60001	11/16/90	PART/ORG		
PS04 N	232/3219B	SPRAY BOOTH	SPRAY-KING	LDI-60C		149418	M54294	11/16/90	PART/ORG	APP "A"	
PS05 N	232/3244	SPRAY BOOTH	SPRAY-KING	LDI-60C		149419	M54295	11/16/90	REC P/O ANN FEE	APP "B"	
WS01	232/PATIO	WST-SOLV TANK	JOOR	2K GAL.		110113	M37536	11/16/90	VOL/ORG		23-003
WT01	232/YARD	TREAT PLANT	NAPCO	300G/D		142875	M58082	11/16/90	ACID/ALK CYANIDE/CR		
AP#	LOCATION	DESC.	MANUFACTURER	MODEL	SERIAL	APPLICATION#	PERMIT#	EXP DATE	POLLUTANT	HAC#	PM#

HUGHES AIRCRAFT COMPANY
MICROWAVE PRODUCTS DIVISION

AIR POLLUTION PERMIT FILE AQ1 REVISED 05/04/90 ID_#12911 BLDGS. 230,231,232,246. PAGE 3

AP#	LOCATION	DESC.	MANUFACTURER	MODEL	SERIAL	APPLICATION#	PERMIT_#	EXP DATE	POLLUTANT	HAC#	PM #
WM01	232/3244D	WAVE-SOLDERER	ZEVATRON	EFT-2		#195514	(219)	11/16/90	LEAD/VOC	2ND APP.	
EG01	231/U-5	EMG.GEN.	ONAN	75DYC	75.ODYC B/231	#195515	D15373 REC 3/26	11/16/90	VOC/PM10		
EG02	230/U-2	EMG.GEN.	ONAN	150	150.ODVE B/230	#195516	D15374 REC 3/12/90	11/16/90	VOC/PM10		
EG03	232/PENT HOUSE	EMG.GEN.	CATERPILLAR	3406	3406DIT B/232	#195517	D15375 2/90	11/16/90	VOC/PM10		
CB01	232/CAFE	CHAR/BROILER	WELLS	B-506		#198792	(219)	11/16/90	VOC/PM10		
AS07	230/ROOF	FUME SCRUBBER	HARRINGTON	ECH-77-5		#189895	D08305	11/16/90	ACID/ALK	(219)	
AS08	230/ROOF	FUME SCRUBBER	HARRINGTON			#189894	D08306	11/16/90	ACID/ALK	(219)	
GP01	230/2524	GOLD PLATE	MESA WEST	D8-D12		#189124	D08307	11/16/90	CYANIDE	(219)	
EP01	230/2524	ELECTRO POLISH	MESA WEST	D1-D7		#189127	D08308	11/16/90	ALK	(219)	
AC01	230/2524	ACID CLEANING	HUGHES	C12-C13		#189854	D08334	11/16/90	ALK	(219)	
NI01	230/2524	NICKEL CERAMIC	HUGHES	A1-A18		#189855	D08335	11/16/90	NI-ACID	(219)	
NI02	230/2524	GENERAL NICKEL	HUGHES	C1-C11 A15		#189858	D08336	11/16/90	NI-ACID	(219)	
CU01	230/2524	COPPER	HUGHES	B1-B11		#190196	D08337	11/16/90	CU-CYANIDE	(219)	
BO01	230/P.HSE	BOILER	SEE NOTE BELOW *			207450		11/16/90	FEES SENT TO MIKE YALCH		
BO02	232/P.HSE	BOILER	" " "			207451		11/16/90	ON 10/26/89 ANNUAL AND TEMP		
TE14	231/2224	PHOTORESIST OPS	HEADWAY/SOLITC			226683	REC 4/20		VOC'S	PMT #2 GR	
TE15	231/2224	SOLVENT CLNG OPS	MANUAL SINKS			226684	REC 4/28		VOC'S	""	
TE16	231/2039A	SOLVENT CLNG OPS	MANUAL SINK			226687	REC 4/28		VOC'S	""	
CT01	*		COMPLIANCE PLAN			213521					
CT02	*		COMPLIANCE PLAN			213522					

*= NEED MORE INFORMATION

| AP# | LOCATION | DESC. | MANUFACTURER | MODEL | SERIAL | APPLICATION# | PERMIT_# | EXP DATE | POLLUTANT | HAC# | PM # |

HUGHES AIRCRAFT COMPANY
MICROWAVE PRODUCTS DIVISION

THIS IS THE DORMANT FILE ASSOCIATED WITH THE PREVIOUS PAGES-- PERMITS THAT HAVE BEEN CANCELLED ETC.

AP#	LOCATION	DESC.	MANUFACTURER	MODEL	SERIAL	APPLICATION#	PERMIT_#	EXP DATE	POLLUTANT	HAC#	PM #
BB02	230/1015 STORAGE	BEAD/BL.	KELKO NOT IN SERV.		05-005	122135 INACT.	M41120 INACT.	11/16/86	PART.	H216644	05-005
BH02 **	230/ROOF E REMOVED_BY	BAGHOUSE BAGHOUSET	SLY SPECIALISTS	22 6/87	P5763 REPLACED	C-37254 BY_142453	M41146	11/16/87	PART.	H ?	06-036
BB03	230/1015 STORAGE	BEAD/BL.	S.S. WHITE NOT IN SERV.		05-012	122137 INACT.	M41122 INACT.	11/16/86	PART.	H348761	05-012
D007	230/2524	DEGSR.	CORPANE	ELS22R	H377885	C-37255	M18602	11/16/89 10/29	FREON TF	H377885	19-008
D008	230/2524	DEGSR.	BAR-BLAKSLEE	FWA480	51148	C-08247	M01541	11/16/89	FREON-EMUL TF	H220073	19-012
D009	230/1738	DEGSR.	BAR-BLAKSLEE	BH230	D-47130	104880 REP_BY_147404	M30297	11/16/87	1,1,1,TRI	H322477	19-013
D012	230/1380 MOVED_TO	DEGSR. 2ND FLR	BAR-BLAKSLEE LOCATION	BH320 03/14/85	D-97197 PROPERTY	C-08249 CONTACTED	M01543 INACT.	11/16/87	1,1,1,TRI	H377894	19-009
D015 OLD	232/3244D	DEGSR.	BAR-BLAKESLEE	MLR120	51173	(134280) IS_AT_SAME_LOCATION_FLUID_CHG_ONLY	(M48352)	11/16/86	NEW PERMIT FOR_DFX	H220068	19-011
D019	231/2039 NOW_USED IN	DEGSR.	BRANSON B/235_R/2024	SD610-4	8-664182	104881 REACT'D	M33861 11/09/87	11/16/86	FREON TA	H431500	19-022
D029	231/2514	DEGSR.	BRANSON	B-250SP	1-2351 -85	131423 MOVED_TO_235	M48350 ROOM_1418	11/16/87 APP_2/26	FREON TF	H ?	19-029
OV01 **	230/1714	CURE OVN	LYLE-SMITH	FST637	4975 REPLACED	108401 BY_142454	M31734	11/16/87	VOL/ORG	H334894	01-048
PS01	230/U-1 REMOVED	SPRAY-BH	BINKS (MAX-.5"WC)	?	?	A54566 REMOVED_FROM_	P42757 SERVICE_APRIL_1990	11/16/90	PART/ORG	H ?	21-038
PS02 **	230/1714	SPRAY-BH	BINKS	?	? REPLACED	UNKNOWN BY_142452	P52144	11/16/87	PART/ORG	H ?	21-026
D009 N	230/1738 THIS_UNIT	DEGR. WAS_PERM	BARON BLAKES ITTED_BUT_WAS	MVW-425 NOT_PURCHASED_THE	UNKNOWN _PURCHASED_UNIT	147404 WAS_A_DELTA	REC 10/23 AND_WAS_REQUESTED_ON_12/1/86	11/16/87	111,TRICH		
WM01	232/3244D	WAVE-SO-LDERER	ZEVATRON	EFT-2		134283 APP._CANC'LD_		APP/5/85	NOT REQUIRED TO HAVE PERMIT PER ENG'R		
AP#	LOCATION	DESC.	MANUFACTURER	MODEL	SERIAL	APPLICATION#	PERMIT#	EXP DATE	POLLUTANT	HAC#	PM#

United States Environmental Protection Agency | Office of Solid Waste and Emergency Response (OS-305) | EPA/530-SW-91-053 May 1991

Office of Solid Waste

EPA

Environmental Fact Sheet

Agency Determines Final Regulatory Status of Special Wastes from Mineral Processing

BACKGROUND

Under the Resource Conservation and Recovery Act (RCRA), mining wastes from the extraction, beneficiation, and processing of ores and minerals are solid wastes. RCRA Section 3001(b)(3), the "Bevill Amendment," has excluded these wastes from regulation as RCRA hazardous wastes under Subtitle C until the Environmental Protection Agency (EPA) makes a final regulatory determination.

This action is the culmination of a number of studies and reports characterizing mining wastes, and a part of the continuing effort toward the development of a mining waste management program.

In 1985, EPA completed a Report to Congress on extraction and beneficiation wastes and determined in 1986 that their regulation as hazardous waste was not warranted. Final rules published in September 1989 and January 1990, defined "high volume" and "low hazard" criteria and applied these criteria to processing wastes to determine which wastes remained within the Bevill exclusion. Out of more than a hundred possible mineral processing waste streams, 20 specific waste streams were retained within the Bevill exclusion. These 20 wastes were the subject of a Report to Congress issued in July 1990. This Report served as both an information source and a proposed rule. It, along with a Notice of Data Availability published in January 1991, is the primary basis for the regulatory decisions in this rulemaking.

Attachment A

Mineral Processing Wastes Addressed in This Regulatory Determination

Alumina
Red and brown muds from bauxite refining

Chromium (sodium chromate/dichromate)
Treated residue from roasting/leaching of chrome ore

Coal Gas
Gasifer ash from coal gasification
Process wastewater from coal gasification

Copper
Slag from primary processing
Calcium sulfate wastewater treatment plant sluge from primary processing
Slag tailings from primary processing

Elemental Phosphorus
Slag from primary production

Ferrous Metals (iron and carbon steel)
Iron blast furnace air pollution control dust/sludge
Iron blast furnace slag
Basic oxygen furnace and open hearth furnace air pollution control dust/sludge
Basic oxygen furnace and open hearth furnace slag

Hydroflouric Acid
Fluorogypsum
Process wastewater

Lead
Slag from primary processing

Magnesium
Process wastewater from primary magnesium processing by the anhydrous process

Phosphoric Acid
Phosphogypsum
Process Wastewater

Titanium Tetrachloride
Chloride process waste solids

Zinc
Slag from primary processing

***** CONFIDENTIAL *****
***** PREDECISIONAL DOCUMENT *****

SUMMARY SCORESHEET FOR COMPUTING
PROJECTED PROPOSED REVISED HRS SCORE

SITE NAME: Hughes Aircraft Company

CITY, COUNTY: Torrance, Los Angeles County

EPA ID #: CAD041666819
PROGRAM ACCOUNT #:

Lat/Long: 33° 48' 37" West
118° 20' 25" North
T/R/S: T4S; R14W; Sec

EVALUATOR: John Chester

DATE: 7/16/90

THIS SCORESHEET IS FOR A: PA ____ SSI ____ LSI ____

SIRe ____ PA Redo ____ Other (Specify) EPI RCRA PA

RCRA STATUS (check all that apply):

✓ Generator ___ Small Quantity Generator ___ Transporter ✓ TSDF

___ Not Listed in RCRA Database as of (date of printout) / /

STATE SUPERFUND STATUS:

N/A BEP (date) / / N/A WQARF (date) / /

	S pathway	S^2 pathway
Air Migration Pathway Score (S_a)		
Groundwater Migration Pathway Score (S_{gw})	68.5	4678.56
Surface Water Migration Pathway Score (S_{sw})		
On-site Exposure Pathway Score (S_{os})		
$S^2_a + S^2_{gw} + S^2_{sw} + S^2_{os}$		4678.56
$(S^2_a + S^2_{gw} + S^2_{sw} + S^2_{os})/4$		1169.64
$\sqrt{(S^2_a + S^2_{gw} + S^2_{sw} + S^2_{os})/4}$		34.2

*Pathways not evaluated (explain): Uncontained hazardous materials are present only to the groundwater pathway. There are no uncontained hazardous materials present to the Air, Surface water, or On-site pathways.

>/rhrs/june90

GROUNDWATER MIGRATION PATHWAY SCORESHEET

Factor Categories and Factors

	Maximum Value	Projected Score	Rationale	Data Qual.
Likelihood of Release				
1. Observed Release	500	0		
*2. Potential to Release				
2a. Containment	10	10	1	H
2b. Net Precipitation	10	1	2	H
2c. Depth to Aquifer/ Hydraulic Conductivity	35	30	3	E
2d. Sorptive Capacity	5	5	4	E
2e. Potential to Release (Lines 2ax(2b+2c+2d))	500	360		
3. Likelihood of Release (Higher of Lines 1 or 2e)	500	360		
Waste Characteristics				
4. Toxicity/Mobility	100	90	5	H
5. Hazardous Waste Quantity	100	100	6	E
6. Waste Characteristics (Lines 4+5)	200	190		
Targets				
7. Maximally Exposed Individual	50	12	7	E
*8. Population				
8a. Level I Concentrations	200			
8b. Level II Concentrations	200			
8c. Level III Concentrations	200			
*8d. Potential Contamination	200			
8e. Population (Lines 8a+ 8b+8c+8d, subject to a maximum of 200)	200	200	8	E
9. Groundwater Use				
9a. Drinking Water Use	50	30	9	E
9b. Other Water Use	20	20	10	E
9c. Groundwater Use (Lines 9a+9b, with a maximum of 50)	50	50		
10. Wellhead Protection Area	50	0		
11. Targets (Lines 7+8e+9c+10, subject to a maximum of 200)	200	200		

Aquifer Evaluated _____

GROUNDWATER MIGRATION PATHWAY SCORESHEET (CONCLUDED)

Factor Categories and Factors

Likelihood of Release	Maximum Value	Projected Score	Rationale	Data Qual.
12. Aquifer Score [Lines 3x6x11)/2x10^5]**	100	68.4		

Groundwater Migration Pathway Score

13. Pathway Score (Sgw), (Highest Value from Line 12 for all aquifers evaluated)	100	68.4 **	

* Use additional tables
** These scores are not to be rounded to the nearest integer.

45.6

Aquifer Evaluated _____

GROUNDWATER PATHWAY CALCULATIONS

2. Potential to Release

Layer Description (i.e., description of layers between contamination and aquifer)	(T) Thickness (ft)	(HC) Hydraulic Conductivity (cm/sec) (see Table 3-5)	(SC) Average Sorbent Content Value From Table 3-6	(T/HC)	(TxSC)
sand	20'	10^{-2}	3	2000	60
silty sand	30'	10^{-4}	15	300000	450
Sum(T)	50'			Sum(T/HC)= 302000	Sum(TxSC) 510

Thickness-Weighted Hydraulic/Conductivity = $\frac{\text{Sum(T)}}{\text{Sum(T/HC)}}$ = $50/302000 = 1.65 \times 10^{-4}$

Depth to Aquifer/Hydraulic Conductivity (Table 3-4) = 30

Sorbent Content = $\frac{\text{Sum(T x SC)}}{100}$ = 5.1

Sorptive Capacity Factor (Table 3-7) = 5

8. Population

Actual Contamination

Well Identifier	Contaminant Detected	Concentration (Note Units)	Benchmark	(A) Population	(B) Level* Divisor	(A/B)

* Divisors
- Level I = 1
- Level II = 10
- Level III = 100

Sum (A/B) Level I
Sum (A/B) Level II
Sum (A/B) Level III

Aquifer Evaluated Gage and Lynwood Aquifers

GROUNDWATER PATHWAY CALCULATIONS (Cont.)

8. **Population**

Potential Contamination

Dilution Weighting Factor (DW)

Distance (miles)	Karst	All Others	(P) Population	(DW x P)
0 to 1/4	1.00	1.00		
>1/4 to 1/2	0.62	0.62		
>1/2 to 1	0.50	0.32		
>1 to 2	0.50	0.18	100,000	18000
>2 to 3	0.50	0.13		
>3 to 4	0.50	0.08	100,000	8,000
			Sum (DW x P)	26,000

Potential contamination = $\frac{\text{Sum(DW x P)}}{100}$ = 200

Aquifer Evaluated _____

Hughes Aircraft, HHCS

1. Rationale: Contaminated soil to a depth of 119' below ground surface have been detected on site. The contamination originated from two leaking underground waste solvent storage tanks. The tanks were removed; however, the contaminated soil remains. A new building was constructed over the location of one of the storage tanks, and a landscaped courtyard constructed over the location of the other tank.

Reference: See reference 5 in PA document.

2. Rationale: Net annual precipitation value for the Torrance area is 3.25 inches.

Reference: See References 15 and 16 in PA document.

3. Rationale: Contamination at the site has been detected to a depth of 119 feet below ground surface (bgs). A log from an on-site well indicated that after perforating and developing the well, standing water was at 107' bgs. Due to possible water level fluctuations and the unknown accuracy of the well log FIT assumes that groundwater is at approximately 100' bgs. The intervening stratigraphy, from depth of contamination to groundwater appears to be composed of 20' of sand and 80 feet of silty sand.

4. Rationale: Factor value based on geologic materials per well log from on-site well. Quantity derived from tables 3-6 and 3-7 of the rHRS manual.

Reference: See reference 14 in PA document

5. Rationale: Factor value based on the constituent: 1,1-Dichloroethylene. From VERSAR tables, the overall toxicity value is 4 and the aquatic mobility value is a 3. This gives a grand total, per table 3-10, of 90.

Reference: See Reference 5 of PA document

6. Rationale: Waste quantity was evaluated using the waste stream Quantity factor/waste-stream hazardous substances quantity (divisor 10). Worst case scenario: a once through of 3500 gallons of 1,1-Dichloroethylene (converted to lbs.) equals a waste stream quantity factor of 3,500. The haz. waste quantity score equals 100.

Reference: See reference 5 of PA document

7. Rationale: the factor value is based on two municipal supply wells located w/in 4 mile of the site. The closest well is the City of Torrance well no. 4 located 1.5 mile northeast of the site, which serves approx. 100,000 people. The other well is the Dominguez Water Company well no. 75, which serves a total population of 100,000 people and is located approx. 4 miles from the site.

35,000

Reference: See references 11 + 13 of PA document

8. Rationale: Factor value based on a unmunicipal supply well located 1.5 miles upgradient of the site

Reference: See reference 13 of PA document.

9. Rationale: Factor value based on the assumption that another water source either from the Metropolitan Water District (surface water) or another private water company could service the customers hooked-up to the Torrance Water Department System.

Reference: See reference 13 of PA document.

10. Rationale: Factor value based on > 5 acres of crop land irrigated with groundwater from the same aquifer underlying the site.

Reference: Observation of irrigated commercial crops located within 0.5 mile of site. Observation recorded during facility reconnaisance trip.

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RECORDS SEPARATOR PAGE

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

<ENFORCEMENT CONFIDENTIAL>

Date: 8/11/93

Environmental Priorities Initiative

PA Review Update

Facility: Hughes Aircraft Co. Cad 076 071 737

Previously Recommended Actions:

1) Maintain as a high-priority site.

2) Defer to DHS, who will address the site through closure.

3) Reevaluate the site during FY'92.

K.Schwinn's comments: If regulated unit has contaminated ground water, facility may need a post-closure permit and therefore won't be able to convert to generator-only status.

Follow-Up:

Regulatory Agency Staff

Contact: Katherine Adam (DTSC-Permits: 310/590-4895)

* Reviewed and revised by K. Adam

The closure plans for all RCRA regulated units are approved. According to K. Adam, ground water was sampled. DTSC(Sharron Leumix) reviewed and approved the sampling plan for the regulated units. No further action was required according to Sharron Leumix. The facility is at the final stages of closure. DTSC is planning to clean-close facility in a month or two.

I read to K. Adam the SWMU units listed in the US EPA Preliminary Assessment Review (PA) report dated 8/1/90:

Chemical Storage area (permitted)
Neutralization Tank
Acid/Base Tank

Filtercake Roll-Off Bin
Chemical Storage Area (Interim Status
according to US EPA)

K. Adam recognizes units that have been addressed in the closure (new and old container storage areas). Katherine is not aware of the following: according to the PA report, additional site assessment and investigation was required to determine all potential contaminant sources and environmental impact. DTSC is clean-closing the facility based on the investigation conducted as part of the sampling plan for the regulated units under closure.

Reevaluation: Elaine Ngo (H-4-4)

1) Upon hearing EPA's concerns for corrective action at the facility, Robert Senga, K. Adam's supervisor, indicated that this site will be brought to Anand Regee's attention. A. Regee is the corrective action coordinator in permits at DTSC R4. Include as part of the FY '94 DTSC Grant Commitment, a RFA for this facility.

2) Reevaluate (in 1994) to ensure that DTSC is initiating corrective action for this facility.

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Hughes Aircraft story (CAD 041 666 819)
Torrance

- Dec 1992 - In assistance to Peri Wood, FG prepares draft consent order for Hughes, because Anand Rege + Aron Yue indicate the EPA issuance of CD would be fine because they didn't have time to and weren't planning to do C/A.

- 2nd week of Jan 1993 - Mohinder reverses Anand's decision and indicates that DTSC will do C/A during closure - no need for EPA to get involved.

- 1/15/93 - EPA says "OK" and transmit draft CD and other documents to assist in getting C/A going at Hughes

- 10/8/93 - Mostafa gets call from Christine Brown asking about Hughes and says DTSC might be doing some C/A in the upcoming months.

- C/A order to Hughes due to us this week for review

- CAD 041 666 819 = check for PA

-

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R23 SA1 R09002 01 TR 00040

Reviewed by N Ward [illegible]
Focus form completed 9[illegible]

RCRA PRIORITIZATION SYSTEM SCORING SUMMARY

FOR

HUGHES AIRCRAFT CO, TORRANCE

EPA SITE NUMBER: CAD041666819

TORRANCE, CA

SCORED BY: D GAMBELIN

OF SAIC

ON 06/10/94

GROUNDWATER SCORE	:	35.37
SURFACE WATER SCORE:		0.00
AIR ROUTE SCORE	:	15.81
ONSITE SCORE	:	0.00
MIGRATION SCORE	:	19.37

Low

EPA ID NO. : CAD041
HUGHES AIRCRAFT CO,

WS-1 GROUNDWATER ROUTE

IS THERE AN OBSERVED RELEASE? Y

ROUTE CHARACTERISTICS

DEPTH TO AQUIFER (FT.) : NA

NET PRECIPITATION (IN.) : NA

PHYSICAL STATE: NA

CONTAINMENT:

WASTE CHARACTERISTICS

CHEMICAL NAME OR WASTE CODE NUMBER: TCE

TOXICITY/PERSISTANCE VALUE: 12

QUANTITY KNOWN? NO

CUBIC YARDS OR TONS	:	0
DRUMS	:	0

AMOUNT IS LIKELY TO BE SMALL

TARGETS

GROUNDWATER USE: DRINKING WATER

DISTANCE TO WELL (MILES): 1.7

EPA ID NO. : CAD041
HUGHES AIRCRAFT CO,

WS-2 SURFACE WATER ROUTE

RELEASES

IS THERE AN OBSERVED RELEASE? N

IS THERE A PERMITTED OUTFALL? N

HAVE THERE BEEN PERMIT VIOLATIONS? N

ROUTE CHARACTERISTICS

FACILITY LOCATION: OTHER

24-HOUR RAINFALL: 2.5

DISTANCE TO SURFACE WATER (MILES): 4.10

PHYSICAL STATE: LIQUID, GAS, SLUDGE

CONTAINMENT: GOOD

WASTE CHARACTERISTICS

CHEMICAL NAME OR WASTE CODE NUMBER: TCE

TOXICITY/PERSISTANCE VALUE: 12

QUANTITY KNOWN? NO

CUBIC YARDS OR TONS: 0
DRUMS : 0

AMOUNT IS LIKELY TO BE SMALL

TARGETS

SURFACE WATER USE: NONE WITHIN THREE MILES

DISTANCE TO INTAKE OR CONTACT POINT (MILES): 3.1

DISTANCE TO SENSITIVE ENVIRONMENT (MILES): 2.1

EPA ID NO. : CAD041
HUGHES AIRCRAFT CO,

WS-3 AIR ROUTE

RELEASES

IS THERE AN OBSERVED, UNPERMITTED, ON-GOING RELEASE? N

DOES THE FACILITY HAVE AN AIR OPERATING PERMIT(S)? Y

HAVE THERE BEEN ANY PERMIT VIOLATIONS OR ODOR COMPLAINTS BY

CAN CONTAMINANTS MIGRATE INTO AIR? N

CONTAINMENT: VERY GOOD

WASTE CHARACTERISTICS

CHEMICAL NAME OR WASTE CODE NUMBER: CYANIDES

TOXICITY/PERSISTANCE VALUE: 3

QUANTITY KNOWN? NO

CUBIC YARDS OR TONS:		0
DRUMS	:	0

AMOUNT IS LIKELY TO BE SMALL

TARGETS

POPULATION: RESIDENCES ARE LOCATED WITHIN FOUR MILES

DISTANCE TO SENSITIVE ENVIRONMENT (MILES): 2.1

EPA ID NO. : CAD041
HUGHES AIRCRAFT CO,

WS-4 ON SITE CONTAMINATION

ACCESS TO SITE: INACCESSIBLE

IS THERE AN OBSERVED SURFACE SOIL CONTAMINATION? N

CONTAINMENT: GOOD

WASTE CHARACTERISTICS

CHEMICAL NAME OR WASTE CODE NUMBER: TCE

TOXICITY/PERSISTANCE VALUE: 3

TARGETS

DISTANCE TO RESIDENTIAL AREAS (MILES): 0.25

IS THERE AN ON-SITE SENSITIVE ENVIRONMENT: N

RCRA PRIORITIZATION SYSTEM SCORING SUMMARY

FOR

(Name of Facility) Hughes Aircraft Co. Electron Dynamics Division and Microwave Products Division

EPA SITE NUMBER: (Number) CAD041666819

(City, State) Torrance CA

SCORED BY: (Name) Don Garbelin

OF (Organization) SAIC

ON (Date) 6/8/94

GROUND WATER ROUTE SCORE	:	(SCORE)
SURFACE WATER ROUTE SCORE	:	(SCORE)
AIR ROUTE SCORE	:	(SCORE)
ON-SITE SCORE	:	(SCORE)
MIGRATION SCORE	:	(SCORE)

WS-1 GROUND WATER ROUTE

A. Is there an observed release? (Yes (45)) No (0) Possible (10)

B. Route Characteristics

1b. Depth to Aquifer (ft.) 0-20 (6) | 21-75 (4) | (76-150 (2)) | 150+ (0) — 80-85 ft bgs

2b. Net Precipitation (in.) <-10 (0) | (-10 to +5 (2)) | +5 to +15 (4) | >15 (6) — 3.85"

3b. Physical State: Stable Solid (0) | Unstable Solid (1) | Powder, Ash (2) | (Liquid, Gas Sludge (3))

C. Containment: Very Good (0) | Good (1) | Fair (2) | (Poor (3)) — In soil, no containment

D. Waste Characteristics

1d. Chemical name or waste code number (Name or Number) TCE

2d. Toxicity/Persistence Value: 0 (0) | 3 (3) | 6 (6) | 9 (9) | (12 (12)) | 15 (15) | 18 (18)

3d. Quantity known? Yes | (No)

Yes? Enter amount: Cu yds or tons (#)
Drums (#) (÷ 4 = cu yds)
Total (add above)

No? Is amount likely to be small? (Yes (1)) No — USTs, which have been removed had @ 3,000 gallon + 500 gal capacities
Is amount likely to be large? Yes (4) No
Are large storage or disposal areas present? ~~Yes (8)~~ No
(only one yes allowed)

E. Targets

1e. Groundwater use:
Drinking water? (Yes (5)) (No) — Aquifers connected w/i ~ two miles of site
Possible drinking water? Yes (4) No
Agriculture or industrial? ~~Yes (3)~~ No
Quality impacted? Yes (2) No
Quality not impacted? Yes (0)* No
(only one yes allowed)

2e. Distance to intake (miles) <1/2 (4) | 1/2 to 1 (3) | (1 to 2 (2)) | 2 to 3 (1) | >3 (0) — 1.75 miles City of Torrance drinking water well

Note:
* Cannot be used of A = 45

WS-2 SURFACE WATER ROUTE

A. Releases

1a. Is there an observed release? Yes (45) / ~~No~~ (0)

2a. Is there a permitted outfall? Yes (5) / ~~No~~ (0)

3a. Have there been permit violations? Yes (5) / ~~No~~ (0)

B. Route Characteristics

1b. Facility Location: Flood-Prone Area (3) / 100-year Flood Plain (2) / ~~Other~~ (1)

2b. 24-hour Rainfall (in.): <1.0 (0) / 1.0 to 2.0 (1) / 2.1 to 3.0 (2) / >3.0 (3) — 2.5 inches

3b. Distance to surface water (miles): <1/4 (6) / 1/4 to 1 (4) / 1 to 2 (2) / ~~>2~~ (0) — Approx. 4 miles

4b. Physical State: Stable Solid (0) / Unstable Solid (1) / Powder, Ash (2) / Liquid, Gas Sludge (3)

C. Containment: Very Good (0) / ~~Good~~ (1) / Fair (2) / ~~Poor~~ (3) — none-in ~~soil~~ Contamination is bgs

D. Waste Characteristics

1d. Chemical name or waste code number (Name or Number) TCE

2d. Toxicity/Persistence Value: 0 (0) / 3 (3) / 6 (6) / 9 (9) / 12 (12) / 15 (15) / 18 (18)

3d. Quantity known? Yes / ~~No~~

Yes? Enter amount: Cu yds or tons (#)
Drums (#) (÷ 4 = cu yds)
Total (add above)

No? Is amount likely to be small? ~~Yes (1)~~ No
Is amount likely to be large? Yes (4) No
Are large storage or disposal areas present? ~~Yes (8)~~ No
(only one yes allowed)

SURFACE WATER ROUTE - Continued

E. Targets

1e. Surface Water use:

Drinking water?	Yes (5)	No
Possible drinking water?	Yes (4)	No
Recreation?	Yes (4)	No
Agriculture or industrial?	Yes (3)	No
Quality impacted?	Yes (2)	No
Quality not impacted but within 3 miles?	Yes (1)*	No
None within 3 miles?	Yes (0)*	No

(only one yes allowed)

2e. Distance to intake or contact point (miles)	≤1/2 (4)	1/2 to 1 (3)	1 to 2 (2)	2 to 3 (1)	≥3 (0)	
3e. Distance to sensitive environment (miles)	≤1/2 (6)	1/2 to 1 (4)	1 to 2 (2)		≥2 (0)	

Palos Verdes peninsula is approx. 4 miles south

Note:
* Cannot be used if A = 45

WS-3 AIR ROUTE

A. Releases

1a. Is there an observed, unpermitted, ongoing release? Yes (45) / No (0) — No (0)

2a. Does the facility have an air operating permit? Yes (5) / No (0) — Yes (5)

3a. Have there been any permit violations or odor complaints by residents? Yes (10) / No (0) — Yes (10) ? Assumed pending info from SCAQMD

4a. Can contaminants migrate into air? Yes (3) / No (0) — No (0) Contaminants are bgs.

5a. Containment — Very Good (0) / Good (1) / Fair (2) / Poor (3) — Very Good (0) ??

B. Waste Characteristics

1b. Chemical name or waste code number — Name or Number ~~FCE~~ Cyanide (generated by facility)

2b. Toxicity — 0 (0) / 1 (3) / 2 (6) / 3 (9) — 3 (9)

3b. Quantity known? Yes / No — No

Yes? Enter amount: Cubic yards or tons (#); Drums (#); Total (add above) (÷ 4 = cu. yds.)

No? Is amount likely to be small? ~~Yes (1)~~ / No
Is amount likely to be large? Yes (4) / No
Are large storage or disposal areas present? ~~Yes (8)~~ / No
(only one yes allowed)

C. Targets

1c. Population

Are residences located within four miles? Yes (25) / No — Yes (25) Approx. .25 miles from site
Are other industries located within four miles? Yes (20) / No
Are agricultural lands located within four miles? Yes (15) / No
Any other situation. Yes (10) / No
(only one yes allowed)

2c. Distance to sensitive environments (miles)

< 1/2 (6) / 1/2 to 1 (4) / 1 to 2 (2) / > 2 (0) — > 2 (0)

Palos Verdes peninsula approx. 4 miles south

WS-4 ON-SITE CONTAMINATION

A. Access to site — Inaccessible (0) | Limited Access (2) | Unlimited Access (4)

Fenced, 24-hour surveillance

B. Is there observed surface soil contamination? — Yes (25) | No (0)

Contamination is bgs

C. Containment — Very Good (1) | Good (2) | Fair (3) | Poor (4)

No containment Contamination 3 bgs

D. Waste characteristics

Chemical Name or Waste Code Number: TCE

Toxicity/Persistence Value — 0 (0) | 1 (1) | 2 (2) | 3 (3)

E. Targets

1e. Distance to residential areas — < 1/4 (6) | 1/4 to 1/2 (4) | 1/2 to 1 (2) | > 1 (0)

Approx. 25 miles

2e. Is there on-site sensitive environment? — Yes (1) | No (0)

CALCULATE ON-SITE SCORE (S_o)

If A = 0, then $S_o = B \times D \times (1e + 2e)/21$

If A ≠ 0, then $S_o = A \times (B + C) \times D \times (1e + 2e)/21$ [a]

If B + C > 25, then B + C = 25

(a) The value 21 standardizes the on-site route score to a value between 0 and 100.

CORRECTIVE ACTION STABILIZATION QUESTIONNAIRE

FACILITY NAME: Hughes Aircraft Company
EPA I.D. NO.: CAD041668l9
CITY, STATE: Torrance, CA

NCAPS RANK: Low
COMPLETED BY: Donald Gambelin, SAIC
DATE:

DOES THIS EVALUATION SUPERSEDE A PREVIOUS EVALUATION?: No

Interim measures are actions to control and/or eliminate releases of hazardous waste and/or hazardous constituents from a facility prior to the implementation of a final corrective measure. Interim measures must be used whenever possible to achieve the goal of stabilization. A site is considered stabilized when:

1) human and environmental exposure pathways are blocked, and
2) off-site migration is stopped, and
3) sources of contaminant releases are controlled.

The purpose of this questionnaire is to assess whether the facility is "stabilized" or in need of interim measures.

1. List the name and date of the most recent document used to evaluate the facility for this questionnaire:
   RCRA Preliminary Assessment date: 8/31/90

2. Current Regulatory Status (mark all applicable):

verify
- (X) Permitted Treatment, Storage or Disposal Facility or Seeking Permit - Specify permit date:
- (X) Closed or Closing Facility
- ( ) Post-Closure Permit
- ( ) Combination: some units closing, some seeking permit (i.e. partial closure)
- ( ) RWQCB Waste Discharge Requirements requiring remediation in effect (CA only)
- ( ) Other

Explanation:
Site awaiting clean-closure certification except for former UST storage areas which are known to be contaminated

3. Is this checklist being completed for the entire facility?

- (X) Yes
- ( ) No, please explain:

4. Are there contaminant releases?

(X) Yes, documented releases. These releases are....

( ) ongoing
(X) historical — soil and groundwater. Waste solvents leaked from USTs that were removed in 1983. TCE plume identified

( ) Maybe, potential releases. These releases may be....

( ) ongoing
( ) historical

( ) No or Unknown, *STOP - SKIP DIRECTLY TO QUESTION 14.*

5. Are contaminant releases migrating off-site?

( ) Yes, please specify contaminants, media, concentration, and source of information:

(X) Potentially — Path would be through soil or GW. ~~No GW contamination in 1980~~ 1983, ~~but contaminants found to 50 ft bgs.~~ TCE plume in GW identified
( ) No
( ) Uncertain

6. Is the source of contamination known?

(X) Yes; Explain: Two USTs that have since been removed

( ) No

7. Are the sources of the contaminant releases being contained and/or controlled?

(X) Yes; please explain: Tanks removed in 1983, However contaminated soils still releasing to groundwater. TCE plume identified

( ) No
( ) Unknown

8. Is there potential for human exposure to contaminants released from the facility ~~from any media~~ (e.g., drinking water supplies) in.... Contamination is in the upper aquifer which is approximately 80ft. bgs. extending to 250 ~~ft~~ bgs. Aquitard exists between upper & lower aquifer under the site. ~~In 1983, contamination was found to 50ft. bgs.~~

( ) Known exposure
( ) Less than 2 years
~~(X)~~ 2 - 5 years
(X) Greater than 5 years
( ) Unknown

~~GW used for drinking water is 107ft bgs. beneath the site, although aquitard is present between upper aquifer & lower aquifer. Contaminants have reached upper aquifer~~

9. Is there potential impact on the environment (e.g., endangered species, wetlands, rivers, vegetation, etc.) from contaminants released by the facility in.....

( ) Known impact
( ) Less than 2 years
( ) 2 - 5 years
(X) Greater than 5 years
( ) Unknown

No potential for surface or air contamination - all contaminants below (72 ft. bgs) surface

10. What is the current status of RCRA corrective action activities at the facility?

(X) No corrective action activities initiated
(X) Preliminary Assessment (PA) completed
(X) RCRA Facility Assessment (RFA) or equivalent completed
( ) RCRA Facility Investigation (RFI) initiated
( ) RFI completed
( ) Corrective Measures Study (CMS) initiated
( ) CMS completed
( ) Corrective Measures Implementation (CMI) begun or completed

11. Can interim measures be implemented more quickly than final corrective measures?

( ) Yes
(X) No
( ) Uncertain

Explanation: Interim measures, which would likely consist of excavating contaminated soil not practical because contamination locations are now covered by building + landscaped patio, + contamination is at least down to 50ft bgs.

12. What regulatory agencies are involved (check all appropriate)?

( ) EPA
(X) State
( ) Local

• Please specify agency name: DTSC

Preparing corrective action order to be issued ~~No actions at the site~~ to the facility ~~required~~ requiring remediation of TCE plume

13. Have interim measures, if begun or completed, been successful in preventing the further spread of contamination from the entire facility, containing contaminant source areas, and in mitigating exposure?

( ) Yes
( ) No
( ) Uncertain, still underway
(X) Interim Measures Not Initiated

Explanation:

14. Considering the answers to the above questions, is this facility an appropriate candidate for interim measures? (Note: The designation in parentheses is the designation for entry into RCRIS.)

( ) Yes (YE)
( ) No, not feasible (NF)
(X) No, not required (NR)
( ) More investigation needed (IN)

Explain Final Decision and Potential Interim Measures:

Interim measures not practical due to depth of contamination (≥50 ft bgs) + location of contamination. Building + landscaped patio now cover contaminated areas. Contamination will be remediated under a corrective action order to be issued by DTSC for clean up of the TCE plume.

15. Describe follow-up activities (e.g. permit, order):

( ) Action Approved
( ) Action Disapproved

Authorizing Signature date

Title

Note: After completing this form, please fill out and complete a RCRIS data entry form for event code CA225 (Stabilization Measures Evaluation). Also, event codes CA600 (Stabilization Measures Imposed) and CA650 (Stabilization Measures Construction Completed) may be appropriate. Thank you!

CONTRACT REPORT FORM

Site Name: Hughes Aircraft Co., Electron Dynamics Division and Microwave Products Division--Torrance, CA

EPA ID: CAD041666819

CONTACT PERSON	TITLE	PHONE
Christine Brown		(310) 590-4879

Agency/Affiliation: Department of Toxic Substances Control

Department/Region: Region IV

Address/City: 245 West Broadway, Suite 425

County/State/Zip: Long Beach CA, 90802

Person Making Contact: Donald Gambelin Date: June 8, 1994

Contractor: SAIC

Subject: DTSC involvement with facility

Comments:

- Contamination at the facility is the result of leaking USTs. USTs were removed from the facility in 1983, however, contaminated soil was not removed.
- TCE plume in the upper aquifer identified from groundwater monitoring that has been conducted since 1991. Groundwater at the facility is 80-85 feet below ground surface.
- Site characterization is complete.
- Upper aquifer, location of TCE plume, is not used for drinking water. Quality is impaired due to salt-water intrusion and other contaminant plumes in the vicinity of the facility.
- DTSC working on corrective action order to be issued to the facility. Corrective action to be required not known.
- RFA equivalent prepared for the facility.
- Facility has generator status. No longer a TSDF. Former storage facilities certified closed.
- RWQCB and EPA not involved with the site. DTSC copies RWQCB on groundwater monitoring results.
- Sensitive environment--Palos Verdes peninsula is approximately 4 miles to the south.

Approved: _____ Date: _____

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, CA 94105

CONFIDENTIAL

<<ENFORCEMENT CONFIDENTIAL>>

MEMORANDUM

DATE: 10-16-1990

SUBJECT: Preliminary Assessment Review

Facility Hughes Aircraft **PA date** 8-10-1990

FROM: MOSTAFA RADMAND

TO: Karen Schwinn
Chief, Waste Compliance Branch

THROUGH: Nancy Lindsay, Chief, Corrective Action Section
Jim Breitlow, Chief, Permits Section
Larry Bowerman, Chief, Alternative Technology Section

I. FACILITY DESCRIPTION

Facility Name: Hughes Aircraft Company

Address: 3100 west Lomita Boulevard
Torrance, California 90509
Los Angeles County

EPA ID Number: CAD041666819

DoHS Region (if CA): Los Angeles County

RWQCB Region (if CA): Los Angeles County

I. FACILITY DESCRIPTION (cont.)

Brief Description of Facility Operations and Hazardous Waste Management:

The Hughes Aircraft Company at Torrance manufactures and Processes electronic Components for the aerospace and defense industry. The Legal owner of the Property is Bard college. Hughes began site operations in 1967. The on site processes that generate Hazardous waste include cleaning, plating, and Preparing Parts for the assembly of electronic components. The types of waste generated at the facility include Solvents, Corrosives, Petroleum-based oils, Cyanide plating solutions, and heavy metals. These wastes are currently stored in either 55 gallons drums at the drum storage area or the vaulted below grade storage tank, or Processed at the waste treatment Center.

General Description of Solid Waste Management Units (SWMUs), if known (indicate RCRA-regulated units with asterisk):

*Two Drum Storage area (RCRA UNIT)
Two underground storage Tank
1 below-grade Concrete-vaulted, storage Tank

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II. ENVIRONMENTAL SIGNIFICANCE (based on review of PA and discussions with FIT contractor)

Per Howard Edwards, E/E 12/10/90

A. Preliminary HRS Range (obtain from FIT; indicate if unknown): 34.9 on groundwater route ~~based on observed release~~ based on potential rather than observed release

Discussion of FIT Recommendations: There is no apparent need for emergency response actions at the Hughes site because:

- All Hazardous substances appear adequately contained
- On-site contaminated soil is located greater than 2 feet below surface
- The site is adequately secured from public access
- Documented soil contamination 50 feet below surface
- Moderate to high potential for Hazardous substances to migrate to the GW
- Large population using groundwater for drinking purposes within 1.75 miles of the site
- No regulatory agency involvement regarding the presense of contaminants in soil underlying the site

these are not reasons in support of no need for emergency response action.

B. Hazardous Waste Exposure Information

Instructions: Check all applicable. Circle letter indicating evidence of release as appropriate: D - documented evidence (e.g. analytical data), V - visual evidence (e.g. observed spills, stained soils, etc.), P - potential for release (e.g. past waste management practices suggest probable releases, known soil contamination has probably caused groundwater contamination. etc.). Specify documentation, who saw visual evidence, and/or rational for potential release, if known.

_____ **Imminent danger to public health/environment. Immediate action required; explain:**

_✓_ **Release to soil.** (D) **V P**

- In 1983 two underground waste Tanks were removed
- Four test holes were drilled to determin whether the Tanks had leaked
- Several volatile organic Compounds were detected in the subsurface Soils at Concentrations ranging from 22 mg/Kg to 440,000 mg/Kg (See section II C)

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II. ENVIRONMENTAL SIGNIFICANCE (cont.)

B. Hazardous Waste Exposure Information (cont.)

✓ **Release to groundwater. D V (P)**

Moderate to high Potential for Hazardous waste located in subsurface soils to migrate to the groundwater

_____ **Release to surface water. D V P.**

_____ **Release to air. D V P**

_____ **High Potential for Migration (media: Groundwater)**

_____ **Sensitive environmental receptors (endangered species, estuaries, etc.) Explain:**

_____ **No releases**

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II. ENVIRONMENTAL SIGNIFICANCE (cont.)

Extent of Site Characterization (check one):

__✓__ minimal _____ extensive _____ unknown

Exposure Considerations:

There are Three deep wells on site. (Approx 500 feet deep with perforated intervals from 300 To 500 feet)
PA report states that depth to GW is 107 feet, however it does not specify The source.

__✓__ Drinking water source at risk: surface or GW

Depth to GW 107 GW flow direction: East ?

GW flow gradient (if known) 1.7 miles Northeast of Facility
1.7 miles Southeast of Facility

Direction/Distance to nearby wells _____

_____ Fishing, recreation water source at risk

_____ Irrigation, livestock water source at risk

_____ Blowing dust; nearby population

_____ Poor Site Security; nearby population

__✓__ Target Population < 4 miles (#, if known 100,000)

Exposure pathway(s) _____

(MAX Concentration detected in ug/Kg)
1 - 520
2 - 740
3 - 25
4 - 1200
5 - 610
6 - 340
7 - 440,000
8 - 1200
9 - 570
10 - 18000
11 - 19000

C. Constituent Release Information

Released Hazardous Constituents of Concern and concentrations(see 40 CFR Section 261 Appendix VIII and Section 264 Appendix IX):

① Acetone ② Chlorobenzene ③ Chloroform, ④ 1,1-Dichloro ethylene ⑤ Ethylbenzene ⑥ methylene chloride, ⑦ Tetrachloro ethylene, ⑧ Toluene ⑨ 1,2-Trans Dichloro ethylene, ⑩ 1,1,1-Trichloro ethane, and ⑪ Trichloro ethylene

Released Hazardous Wastes of Concern (listed/characteristic):

Volume of Waste Released (if known): I don't Know

Toxicity of Waste (if available from HRS package):

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II. ENVIRONMENTAL SIGNIFICANCE (cont.)

Additional considerations related to environmental significance:

III. SITE ENVIRONMENTAL PRIORITY

Instructions: Assign priority based on technical considerations only. Final priority should be briefly explained in terms of potential exposure to human health and the environment based on the technical considerations in Section II.

_____ High Priority

* Known or suspected release which has resulted in, or which has high potential for, exposure to human population and/or sensitive environments, in the short term (< 10 years).

* Rough Guideline: Preliminary worst case HRS score > 25

_____ Medium Priority

* Known or Suspected release with potential for exposure to human health or sensitive environments in the long term (> 10 years).

* Rough Guideline: Preliminary worst case HRS score between 16 and 25

_____ Low Priority

* Known or suspected release, but unlikely adverse effect on human health or the environment.

* Rough Guideline: Preliminary worst case HRS Score between 5 and 15

_____ No Further Action

* No evidence of a release that could adversely affect human health or the environment.

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III. SITE ENVIRONMENTAL PRIORITY (cont.)

Comments/Rationale:

The municipal water supply well that serve over 100,000 people is 1.7 miles northeast of this facility.

High potential for Hazardous Constituents Located in subsurface soils to migrate to the groundwater.

IV. RCRA PERMITTING STATUS

A. Contact Person(s):

	Name	Date Contacted	Phone	Agency
1.	~~Clarence Berman~~ Tom Canady		(415) 744	EPA-Permits
2.	Clarence Berman Norberto Pantassi		(213) 590-5924 (213) 590-5906	State-Permits State - Enforcement
3.				RWQCB (CA only)
4.				Other (specify)
5.				

B. Current Status (mark all applicable):
Instructions: For source, indicate file document or numeral for contact person listed above.

✓ **Operating RCRA TSDF; Source:** PA Report and File / SPARS

_____ **Not Operating RCRA TSDF; Source:**

_____ **Bankrupt Facility; Source:**

_____ **Non-Notifying TSDF - should be a RCRA TSDF but didn't submit a Part A permit application**
Source:

_____ **Generator only - never operated as a TSDF**
Source:

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IV. RCRA PERMITTING STATUS (cont.)

B. Current Status (cont.)

Hughes has submitted its RCRA Part B application for storage permit. however, the permit can not be issued by DHS untill the property owner Bard College, signs the permit. Bard College is not willing to sign the Permit application.

Hughes can operate under interim status until 1991.

__✓__ Permitted TSDF or Seeking Permit;
Source:

Date Permitted:_____ Agency:_____

Part B Permit Application Submitted? (Y) N

Permit Application Review Lead (circle)
EPA (STATE) OTHER (specify)

Corrective Action in (draft) Permit? Y (N)

Expected Permit Issuance Date: ?

Permit Expiration Date:

Permit Renewal Application Submitted Y N

(Expected) Renewed Permit Issuance Date:

Renewed Permit Expiration Date:

_____ Closed or Closing Facility; Source:

Closure Plan Submittal (Expected) Date:

Closure Plan Review Lead (circle all applicable):
EPA STATE OTHER (specify)

Closure Plan Approved? Y N Date:

Closure Certification Received? Y N

Clean Closed? Y N

Closure Certification accepted by EPA/DoHS? Y N

_____ Post-Closure permit; Source:

Post-Closure Permit Application Submitted?
Y N

Post-Closure Permit Application Review Lead
EPA STATE Other (specify)

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IV. **RCRA PERMITTING STATUS (cont.)**

B. Current Status (cont.)

Corrective Action in (draft) Permit Y N NA

(Expected) Post-Closure Permit Issuance Date:

_____ Combination: some units closing, some seeking permit (i.e. partial closure). Source:
Explain:

_____ Part A Withdrawal Candidate; Source:
Explain:

_____ RWQCB Waste Discharge Requirements requiring investigation and/or remediation in Effect (CA only)

Other Comments:

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V. OTHER REGULATORY ACTIVITIES RELEVANT TO CORRECTIVE ACTION

A. Contact Person(s):

	Name	Date Contacted	Phone	Agency
6.				EPA-Enforcement (RCRA)
7.				EPA-CERCLA
8.				State-Enforcement
9.				State-Superfund
10.				RWQCB
11.				Other (specify)
12.				

B. Activity

Instructions: mark all applicable; note any pertinent outstanding violations.

____ EPA Enforcement Action with Activities Relevant to Corrective Action; Source: PA report
Date:
Explain:

NONE

V. OTHER REGULATORY ACTIVITIES RELEVANT TO CORRECTIVE ACTION (cont.)

____ **State Enforcement Action with Activities Relevant to Corrective Action; Source:**
Date:
Explain:

NONE

____ **Regional Water Board Order or WDR Requiring Corrective Action (CA only); Source:**
Date:
Explain:

NONE

____ **Other Agency Enforcement Action with Activities Relevant to Corrective Action; Source:**
Date:
Explain:

NONE

VI. OVERALL STATE LEVEL OF INVOLVEMENT IN CORRECTIVE ACTION
(based on state actions, level of state staff person's oversight)
Mark one:

_____ High _____ Medium _____ Low

Rationale: NONE

VII. FACILITY WILLINGNESS/ABILITY TO PERFORM CORRECTIVE ACTION

_____ Facility is cooperative

_____ Facility is uncooperative; Explain:


Unknown

_____ Facility may be financially unable to complete work. Explain:

Other Comments:

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VIII. **RECOMMENDATION FOR FURTHER ACTION** (mark all applicable)
Instructions: Consider factors in Sections I - VII to arrive at final recommendation for further action.

_____ Imminent and substantial danger to human health or the environment requires issuance of RCRA 7003 Order and/or CERCLA 106 Order.

_____ Issue RCRA 3013 order. Release of hazardous waste presents a substantial hazard to human health or the environment (investigation only).

_____ Refer to CERCLA for further follow-up.

_____ Facility unwilling or unable to perform corrective action (explain in Section VII)

_____ Other (e.g. mining waste, active superfund site, generator only, etc.) Specify:

__✓__ No further CERCLA action

_____ Conduct an RFA

_____ as prelude to expected corrective action order

_____ as prelude to permit issuance

_____ Use a 3007 letter to obtain more information regarding the following items (a subsequent recommendation must be made after the information is received):

EPIB (Action ?)

__✓__ Negotiate 3008(h) Consent Order
- Must have documented or probable release of hazardous wastes or constituents
- Must be a RCRA TSDF that has interim status (i.e. not yet permitted, including illegal TSDF that should have had interim status.
- For California, must <u>not</u> have a permit issued by DoHS between 1/13/83 and 11/8/84. Permits issued by DoHS between 11/9/84 and 1/31/86 are considered partial RCRA-equivalent permits; with respect to corrective action, facilities permitted between 11/9/84 and 1/31/86 have interim status.

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VIII. RECOMMENDATION FOR FURTHER ACTION (cont.)
(mark all applicable)

_____ **Incorporate corrective action into post-closure permit through 3004(u) and (v).**

(EPITS ACTION 3)

X **Incorporate corrective action into permit through 3004(u) and (v).** Discuss w/ State as grant substitute - So as of now, not a 90/91 grant commitment. (*)

_____ **Include corrective action in closure plan (appropriate only for surface soil releases near regulated units)**

_____ **Ongoing or planned State action is sufficient to address release(s). Defer to state or other agency lead (identify):**

_____ **No further RCRA action at present; re-evaluate next year.**

(EPITS ACTION 2)

_____ **No further RCRA action.**

✓ **Other (specify):** Refer to Enforcement Section H-4-10 & H-4-3

Two storage area were Identified in the original Part A application (submitted Nov/18/1990). One of the storage areas was located between building 230, 231, and 232. Hazardous waste stored at this location included acid and base rinses, cyanide waste and chrome waste. This area was demolished in early 1983 for the construction of building 232 and a courtyard.

(*) I recommend complete file review (EPA, STATE, and Regional Board) for possible closure requirements violation. (See Attachment 1 & 2 for Units location)

Comments:

(*) Per Jim Bretton, likelihood of DTSC working on this this year is slim/none. Also, facility hasn't signed part B application, therefore, must pursue via (h) order.

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VIII. RECOMMENDATION FOR FURTHER ACTION (cont.)

✓ **Recommendation Accepted**

Karen Schwinn 1/21/91

Karen Schwinn
Chief
Waste Compliance Branch

When applicable, entity to perform RFA:

_____ **State**

AR 1/21/91 _____ **FIT (CERCLA)**

~~RCRA~~ _____ **contractor (RCRA)**

_____ **Other; specify:**

cc: Virginia Cummings, EPI Superfund Liaison, H-8-1
Jesse Baskir, EPI Coordinator, H-4-4
Jim Breitlow, Permits, H-3-2 (when appropriate)
Jane Diamond/Steve Johnson H-4/3/H-4-1

RECORDS SEPARATOR PAGE

HUGHES

Subsidiary of GM Hughes Electronics

Gary L. Rafferty Corporate Staff Counsel

Building C1 M/S A114
Telephone: (213) 568-6270
Telefax: (213) 568-7834

April 8, 1991

Ms. Periann Wood
United States Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105

Re: H-4-3, EPA ID: CAD041666819

Dear Ms. Wood:

This will confirm our telephone conversation of last Friday, wherein you agreed to a fifteen day extension to respond to the above letter. As I indicated, we will at least have a partial response, and may request additional time to respond more fully.

Very truly yours,

Gary L. Rafferty

GLR:djs

HUGHES
Bldg C01, MS A114
PO Box 45066
Los Angeles CA 90045-0066

Ms. Periann Wood (H-4-3)
United States Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105

- ensures compliance w/ closure requirements

sent 3/25 → 3/31 = 7 days
+ 15 days

4/8/91 15 days
4/23/91 additional 15 days

Fri 4/5/91
Hughes Aircraft, Torrance

Gary Cafferty (legal counsel to Hughes) called
requesting 45 days extension

GR # 213 - 568 - 6270

Secap # 213 - 568 - 7246

- Conferred w/ Jane to give an additional 15 days.

tried to contact Mostafa - left a message. He was
planning on sending an order on 4/20/91

Give Rafferty a total of 30 days (additional 15 days)

submittal date on 4/20/91

Communicated 15 day extension at 2:15pm 4/5/91
client unhappy about it.

return call to 4/1/91
Jim Weaver
Torrance
213 - 517 - 6579
→ Worked at Hughes (Torrance). Case

HAND-DELIVERED

HUGHES
AIRCRAFT COMPANY
ELECTRON DYNAMICS DIVISION
Industrial Electronics Group

5/21

May 20, 1991

HAND-DELIVERED

California Regional Water Quality
Control Board
101 Centre Plaza Drive
Monterey Park, CA 91754

ATTENTION: Mr. Arthur Heath

REFERENCE: Work Plan For Groundwater Assessment at
Hughes Aircraft Company (ID #905050016),
3100 West Lomita Blvd., Torrance, Ca. 90505

Dear Mr. Heath:

Pursuant to receiving your letter of March 28, 1991 approving the above referenced Work Plan, our discussion over the telephone on April 5, 1991 verified yours and Joshua Workman's opinion that it was not necessary at this time to perform soil sampling beneath Building 232 in the vicinity of the former 3000 gallon waste solvent tank. Based upon that input, Hargis and Associates has produced a Revised Work Plan for the project, dated April 24, 1991. The revised plan is an exact duplicate of the plan previously approved, with the exception that it deletes the references to the two proposed soil borings and sampling under Building 232. If at a future time, it should prove necessary to perform soil sampling in this area, a plan to carry out that work will be filed with the Board for your review. Enclosed herewith is a copy of the revised plan for your files.

Also, per our telephone discussion of April 5, 1991, we will be unable to comply with the completion date of May 31, 1991. We have just finalized the contract with Hargis and Associates to perform the work. They will require 30 days after signing of the contract to staff the project, procure the necessary DHS permits and mobilize their subcontractors. Subsequently, they project a 3.5 month time frame for performing the drilling, doing two rounds of ground water sampling, getting the laboratory analyses and preparing the report for submission to your office. Therefore I am requesting an extension of the due date to October 31, 1991.

3100 West Lomita Boulevard, P.O. Box 2999, Torrance, CA 90509-2999
(213) 517-6000

I hope that this meets with your approval. If so, would you please send a brief confirmation to my attention acknowledging the extension. If you have any questions or comments regarding the foregoing, please contact me at your convenience.

Sincerely,

HUGHES AIRCRAFT COMPANY
ELECTRON DYNAMICS DIVISION

Michael H. Yalch

Michael H. Yalch
Business Manager

MHY/ps

HARGIS + ASSOCIATES, INC.
2223 Avenida De La Playa, Suite 300
La Jolla, California 92037
(619) 454-0365
Telecopier (619) 454-5839

John R. Hargis, PhD, P.E.
Michael R. Long, R.G.
Terry M. Turner, R.G.
Roger A. Hanneman, R.G.
Eric S. Leichnani, Ph.D., R.G.
Daniel J. Raymond
Peter T. Quinlan
J.D. Monbacher, P.E.
Christopher G.A. Ross, R.G.

9MW
5/2/91

April 24, 1991

VIA UPS

Dr. Michael Yalch
HUGHES AIRCRAFT COMPANY
Electron Dynamics Division
3100 West Lomita Boulevard
Torrance, CA 90509

Re: Transmittal of Revised Soil and Groundwater Assessment Work Plan, Hughes Aircraft Company, Torrance, California

Dear Dr. Yalch:

Transmitted herewith are two (2) copies of our revised work plan entitled:

Revised
Soil and Groundwater Assessment Work Plan
Hughes Aircraft Company
Torrance, California

Our previous work plan dated January 30, 1991 has been revised in accordance with our discussions. Hargis + Associates, Inc. has been advised that during your meeting with Regional Water Quality Control Board (RWQCB) personnel in March of this year, the necessity of drilling soil borings inside Building 232 to investigate soil conditions in the vicinity of former 3,000 gallon waste solvent tank No. 1 was discussed. RWQCB personnel indicated to you that they did not consider it necessary to sample the soil beneath the building at this time. The construction of monitor wells downgradient of former tank No. 1 and adjacent to former tank No. 2 should provide an indication of whether the former waste solvent tanks impacted groundwater quality. Accordingly the work plan has been revised to omit soil sampling beneath Building 232 in the vicinity of tank No. 1, the former 3,000 gallon waste solvent.

Other Offices:
Tucson, AZ
Mesa, AZ
Manhattan Beach, CA
Burbank, CA

If you have any questions or require further discussion, please contact me.

Sincerely,

HARGIS + ASSOCIATES, INC.

Peter T. Quinlan
Associate

PTQ/tlm

Enclosure

cc: Gary L. Rafferty, Counsel

yalch05.850

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, CA 94105

<<ENFORCEMENT CONFIDENTIAL>>

MEMORANDUM

Updated 9/91 by Frank R Gardner

DATE: Aug 1, 1990

SUBJECT: Preliminary Assessment Review
Facility HUGHES AIRCRAFT CO. CONNECTING DEVICES DIV. PA date APRIL 30 '90

FROM: FREDRICK MOORE, H-3-2

TO: Karen Schwinn
Chief, Waste Compliance Branch

THROUGH: Nancy Lindsay, Chief, Corrective Action Section
Jim Breitlow, Chief, Permits Section
Larry Bowerman, Chief, Alternative Technology Section

I. FACILITY DESCRIPTION

Facility Name:	HUGHES AIRCRAFT CO. CONNECTING DEVICES DIVISION
Address:	17150 VON KARMAN AVE IRVINE, CA 92714 ORANGE COUNTY
EPA ID Number:	CAD 076 071 737
DoHS Region (if CA):	REGION 4
RWQCB Region (if CA):	SANTA ANA REGION

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I. FACILITY DESCRIPTION (cont.)

Brief Description of Facility Operations and Hazardous Waste Management:

- FACILITY MANUFACTURES ELECTRICAL CIRCUIT BOARDS AND CONNECTING DEVICES.
- HAZARDOUS WASTES ARE EITHER:

→ DRUMMED, THEN FED INTO WASTEWATER TREATMENT SYS.

→ FED DIRECTLY INTO WASTEWATER TREATMENT SYS.

→ DRUMMED, THEN SENT OFF-SITE FOR DISPOSAL

General Description of Solid Waste Management Units (SWMUs), if known (indicate RCRA-regulated units with asterisk):

CHEMICAL STORAGE AREA* (Permitted)
NEUTRALIZATION TANK
ACID/BASE TANK
FILTERCAKE ROLL-OFF BIN

CHEMICAL STORAGE AREA* (PRE-'85)(Interim Status)

per Frank Barbuto's memo

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II. ENVIRONMENTAL SIGNIFICANCE (based on review of PA and discussions with FIT contractor)

A. Preliminary HRS Range (obtain from FIT; indicate if unknown):

RANGE NOT GIVEN. FACILITY SCORED 29.4 [r HRS]

Discussion of FIT Recommendations:

SCORE BASED ON 3 FACTORS:

- MODERATE RISK OF AIR RELEASE RISK
- HIGH RISK OF GROUND WATER CONTAMINATION DUE TO CONTAMINATED SOIL
- GROUND WATER DRINKING SOURCE WITHIN 4 MILES

B. Hazardous Waste Exposure Information

Instructions: Check all applicable. Circle letter indicating evidence of release as appropriate: D - documented evidence (e.g. analytical data), V - visual evidence (e.g. observed spills, stained soils, etc.), P - potential for release (e.g. past waste management practices suggest probable releases, known soil contamination has probably caused groundwater contamination. etc.). Specify documentation, who saw visual evidence, and/or rational for potential release, if known.

_____ Imminent danger to public health/environment. Immediate action required; explain:

✓ Release to soil. (D) V P

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II. ENVIRONMENTAL SIGNIFICANCE (cont.)

B. Hazardous Waste Exposure Information (cont.)

✓ Release to groundwater. D V (P)

_____ Release to surface water. D V P

✓ Release to air. D (V) P

✓ High Potential for Migration (media: Ground Water)

✓ Sensitive environmental receptors (endangered species, estuaries, etc.) Explain:

- ASSORTED endangered species PLANTS AND ANIMALS WITHIN 3 OR 4 MILES. (See PA for details)
- PRIMARY EXPOSURE ROUTE DUE TO SURFACE WATER WHICH IS ONLY A MODERATE RISK AT HUGHES AIRCRAFT CO. (Near by canal feeds to Newport Beach bay mass wetlands).

_____ No releases

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II. ENVIRONMENTAL SIGNIFICANCE (cont.)

Extent of Site Characterization (check one):

✓ minimal _____ extensive _____ unknown

Exposure Considerations:

✓ Drinking water source at risk: surface or (GW)

Depth to GW 7 ft. GW flow direction: Southwest

GW flow gradient (if known) N/A

Direction/Distance to nearby wells • 2 miles Northwest • >2 miles Northeast

✓ Fishing, recreation water source at risk

_____ Irrigation, livestock water source at risk

_____ Blowing dust; nearby population _____ Poor Site Security; nearby population

✓ Target Population < 1 mile (#, if known 1,611)

Exposure pathway(s) Air, Ground Water

C. Constituent Release Information

Released Hazardous Constituents of Concern and concentrations (see 40 CFR Section 261 Appendix VIII and Section 264 Appendix IX): 1,2 - Dichloroethylene, 1,1 - Dichloroethane 1,2 - Dichloroethane 1,1,1 - Trichloroethane Trichloroethylene Chlorobenzene 1,1,2,2 - Tetrachloroethane Tetrachloroethylene Chromium

Released Hazardous Wastes of Concern (listed/characteristic): F001 F003 F005 F006

Volume of Waste Released (if known):

N/A

Toxicity of Waste (if available from HRS package):

Acetone = 2 MEK = 3 Methylene Chloride = 2 Copper = 5 Nickel = 5
Lead = 5 TCA = 2 ~~Cadmium~~ Cadmium = 5 TCE = 3

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II. ENVIRONMENTAL SIGNIFICANCE (cont.)

Additional considerations related to environmental significance:

III. SITE ENVIRONMENTAL PRIORITY

Instructions: Assign priority based on technical considerations only. Final priority should be briefly explained in terms of potential exposure to human health and the environment based on the technical considerations in Section II.

✓ High Priority

* Known or suspected release which has resulted in, or which has high potential for, exposure to human population and/or sensitive environments, in the short term (< 10 years).

* Rough Guideline: Preliminary worst case HRS score > 25

_____ Medium Priority

* Known or Suspected release with potential for exposure to human health or sensitive environments in the long term (> 10 years).

* Rough Guideline: Preliminary worst case HRS score between 16 and 25

_____ Low Priority

* Known or suspected release, but unlikely adverse effect on human health or the environment.

* Rough Guideline: Preliminary worst case HRS Score between 5 and 15

_____ No Further Action

* No evidence of a release that could adversely affect human health or the environment.

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III. SITE ENVIRONMENTAL PRIORITY (cont.)

Comments/Rationale:

Site has scored high due to known contamination of soil and site specific factors of exposure. More site characterization needed to determine if actual problem exists.

IV. RCRA PERMITTING STATUS

A. Contact Person(s):

	Name	Date Contacted	Phone	Agency
1.	Tom Canaday	9/3/91	744-2070	EPA-Permits
2.	RAY CAMPBELL	7/20/90		State-Permits DHS Region 4
3.				RWQCB (CA only)
4.	Steve Pilkington	7/20/90		Other (specify) Hughes Aircraft
5.				

B. Current Status (mark all applicable):
Instructions: For source, indicate file document or numeral for contact person listed above.

✓ Operating RCRA TSDF; Source: #4

_____ Not Operating RCRA TSDF; Source:

_____ Bankrupt Facility; Source:

_____ Non-Notifying TSDF - should be a RCRA TSDF but didn't submit a Part A permit application
Source:

_____ Generator only - never operated as a TSDF
Source:

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IV. RCRA PERMITTING STATUS (cont.)

B. Current Status (cont.)

✓ ONCE PERMITTED Permitted TSDF or Seeking Permit;
Source:

Date Permitted: June 28, '85 Agency: DHS

Part B Permit Application Submitted? (Y) N
for '85 permit

Permit Application Review Lead (circle)
EPA (STATE) OTHER (specify)

Corrective Action in (draft) Permit? Y (N)

Expected Permit Issuance Date:

Permit Expiration Date: June 28, '90

Permit Renewal Application Submitted Y (N)

(Expected) Renewed Permit Issuance Date: NONE EXPECTED

Renewed Permit Expiration Date:

✓ Closed or Closing Facility; Source: #4, RCRA PERMIT

Closure Plan Submittal (Expected) Date: June 21, '83

Closure Plan Review Lead (circle all applicable):
EPA (STATE) OTHER (specify)

Closure Plan Approved? (Y) N Date: June 28, '85

Closure Certification Received? Y (N)

Clean Closed? Y (N)

Closure Certification accepted by EPA/DoHS? Y (N)

_____ Post-Closure permit; Source:

Post-Closure Permit Application Submitted?
Y N

Post-Closure Permit Application Review Lead
EPA STATE Other (specify)

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IV. RCRA PERMITTING STATUS (cont.)

B. Current Status (cont.)

Corrective Action in (draft) Permit Y N NA

(Expected) Post-Closure Permit Issuance Date:

_____ Combination: some units closing, some seeking permit (i.e. partial closure). Source:
Explain:

_____ Part A Withdrawal Candidate; Source:
Explain:

_____ RWQCB Waste Discharge Requirements requiring investigation and/or remediation in Effect (CA only)

Other Comments:

- Facility has requested regulatory guidance and oversight from DHS Region 4 as they go through closure. DHS has currently reviewing closure plan. ~~not responded yet.~~
- Facility did not ~~submit~~ submit Part B renewal: Trying to switch to generate-only status.
- Facility used chemical storage area under interim status until '85 when they used a new storage area that was permitted June 28, 1985

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V. OTHER REGULATORY ACTIVITIES RELEVANT TO CORRECTIVE ACTION

A. Contact Person(s):

	Name	Date Contacted	Phone	Agency
6.				EPA-Enforcement (RCRA)
7.				EPA-CERCLA
8.	Sharon Lemieux	9/3/91	213/590-4893	State-Enforcement Closure
9.	Pearl Hofficer	9/4/91	714/667-3728	State-Superfund Orange Co. Health Agency - USTs
10.	Curt Berchtold	7/20/90		RWQCB
11.	Steve Pilkington	7/20/90		Other (specify) Hughes Aircraft
12.	Lewis DeVango	7/20/90		Orange Co. Health Agency

B. Activity

Instructions: mark all applicable; note any pertinent outstanding violations.

____ EPA Enforcement Action with Activities Relevant to Corrective Action; Source:
Date:
Explain:

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V. OTHER REGULATORY ACTIVITIES RELEVANT TO CORRECTIVE ACTION (cont.)

____ **State Enforcement Action with Activities Relevant to Corrective Action; Source:**
Date:
Explain:

____ **Regional Water Board Order or WDR Requiring Corrective Action (CA only); Source:**
Date:
Explain:

X **Other Agency Enforcement Action with Activities Relevant to Corrective Action; Source:** 9
Date:
Explain: On 10/29/86, the facility reported a leaking gasoline UST. A OCHA inspector observed the removal of the LUST. A small amount of contam. soils were observed and sampled. Results indicated ND for BTXE, although 116 ppm of tph were recorded in the sample. Due to the small amount of contamination, the inspector did not require any borings or wells. It is not known if the small amount of contam. soil was removed.

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VI. OVERALL STATE LEVEL OF INVOLVEMENT IN CORRECTIVE ACTION
(based on state actions, level of state staff person's oversight)
Mark one:

_____ High _____ Medium ✓ Low

Rationale:

Unknown, Probably due to low priority.

VII. FACILITY WILLINGNESS/ABILITY TO PERFORM CORRECTIVE ACTION

_____ Facility is cooperative

_____ Facility is uncooperative; Explain:

✓ Unknown

_____ Facility may be financially unable to complete work.
Explain:

Other Comments:

Due to one phone call to environmental manager, Steve Pilkington, it seems facility wishes to be cooperative and is aware of past contamination and wants DHS involvement to address remediation.

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VIII. **RECOMMENDATION FOR FURTHER ACTION** (mark all applicable)
Instructions: Consider factors in Sections I - VII to arrive at final recommendation for further action.

_____ Imminent and substantial danger to human health or the environment requires issuance of RCRA 7003 Order and/or CERCLA 106 Order.

_____ Issue RCRA 3013 order. Release of hazardous waste presents a substantial hazard to human health or the environment (investigation only).

_____ Refer to CERCLA for further follow-up.

_____ Facility unwilling or unable to perform corrective action (explain in Section VII)

_____ Other (e.g. mining waste, active superfund site, generator only, etc.) Specify:

✓ No further CERCLA action

If negotiations w/DoHS fail, pursue RFA & (h) order.

✓ Conduct an RFA

✓ as prelude to expected corrective action order

_____ as prelude to permit issuance

_____ Use a 3007 letter to obtain more information regarding the following items (a subsequent recommendation must be made after the information is received):

✓ Negotiate 3008(h) Consent Order
- Must have documented or probable release of hazardous wastes or constituents
- Must be a RCRA TSDF that has interim status (i.e. not yet permitted, including illegal TSDF that should have had interim status.
- For California, must <u>not</u> have a permit issued by DoHS between 1/13/83 and 11/8/84. Permits issued by DoHS between 11/9/84 and 1/31/86 are considered partial RCRA-equivalent permits; with respect to corrective action, facilities permitted between 11/9/84 and 1/31/86 have interim status.

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VIII. **RECOMMENDATION FOR FURTHER ACTION** (cont.)
(mark all applicable)

_____ Incorporate corrective action into post-closure permit through 3004(u) and (v).

_____ Incorporate corrective action into permit through 3004(u) and (v).

_____ Include corrective action in closure plan (appropriate only for surface soil releases near regulated units)

__1__ Ongoing or planned State action is sufficient to address release(s). Defer to state or other agency lead (identify): DHS
The facility is a FY 1992 RCRA Grant Commitment

_____ No further RCRA action at present; re-evaluate next year.

_____ No further RCRA action.

~~V~~ _____ Other (specify):

Negotiate with DHS to include this site into FY-91 workplan — possibly to switch this site with another that is more benign.

Comments: ~~As an alternative~~ we could try the following, which may be less costly. H-3-2 Suggested is the following steps:

1. Immediately negotiate with DHS to have Region 4 oversee the closure at this site. Have state determine if facility will allow contamination concerns in PA/SI to be addressed as part of closure
2. If State does not agree to include in FY91 workplan, or if DHS encounters unexpected resistance of Hughes, then EPA should lead and prepare RFA and 3008(h) order.

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VIII. RECOMMENDATION FOR FURTHER ACTION (cont.)

✓ Recommendation Accepted

Karen Schwinn 8/23/90

Karen Schwinn
Chief
Waste Compliance Branch

When applicable, entity to perform RFA:

_____ State

_____ FIT (CERCLA)

✓? contractor (RCRA)

_____ Other; specify:

cc: Virginia Cummings, EPI Superfund Liaison, H-8-1
Jesse Baskir, EPI Coordinator, H-4-4
Jim Breitlow, Permits, H-3-2 ~~(when appropriate)~~

pamemfrm.epa revised 4/20/90

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, CA 94105

<<ENFORCEMENT CONFIDENTIAL>>

MEMORANDUM

DATE: Aug 1, 1990 Updated 9/91 by Frank R Gardner

SUBJECT: Preliminary Assessment Review
Facility HUGHES AIRCRAFT Co. CONNECTING DEVICES DIV. PA date APRIL 30 '90

FROM: FREDRICK MOORE, H-3-2

TO: Karen Schwinn
Chief, Waste Compliance Branch

THROUGH: Nancy Lindsay, Chief, Corrective Action Section
Jim Breitlow, Chief, Permits Section
Larry Bowerman, Chief, Alternative Technology Section

I. FACILITY DESCRIPTION

Facility Name:	HUGHES AIRCRAFT CO. CONNECTING DEVICES DIVISION
Address:	17150 VON KARMAN AVE IRVINE, CA 92714 ORANGE, COUNTY
EPA ID Number:	CAD 076 071 737
DoHS Region (if CA):	REGION 4
RWQCB Region (if CA):	SANTA ANA REGION

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II. ENVIRONMENTAL SIGNIFICANCE (based on review of PA and discussions with FIT contractor)

A. Preliminary HRS Range (obtain from FIT; indicate if unknown):

RANGE NOT GIVEN. FACILITY SCORED 29.4 [r HRS]

Discussion of FIT Recommendations:

SCORE BASED ON 3 FACTORS:

- MODERATE RISK OF AIR RELEASE RISK
- HIGH RISK OF GROUND WATER CONTAMINATION DUE TO CONTAMINATED SOIL
- GROUND WATER DRINKING SOURCE WITHIN 4 MILES

B. Hazardous Waste Exposure Information

Instructions: Check all applicable. Circle letter indicating evidence of release as appropriate: D - documented evidence (e.g. analytical data), V - visual evidence (e.g. observed spills, stained soils, etc.), P - potential for release (e.g. past waste management practices suggest probable releases, known soil contamination has probably caused groundwater contamination. etc.). Specify documentation, who saw visual evidence, and/or rational for potential release, if known.

_____ Imminent danger to public health/environment. Immediate action required; explain:

✓ Release to soil. (D) V P

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II. ENVIRONMENTAL SIGNIFICANCE (cont.)

Extent of Site Characterization (check one):

✓ minimal _____ extensive _____ unknown

Exposure Considerations:

✓ Drinking water source at risk: surface or (GW)

Depth to GW 7 ft. GW flow direction: Southwest

GW flow gradient (if known) N/A

Direction/Distance to nearby wells • 2 miles Northwest • >2 miles Northeast

✓ Fishing, recreation water source at risk

_____ Irrigation, livestock water source at risk

_____ Blowing dust; nearby population

_____ Poor Site Security; nearby population

✓ Target Population < 1 mile miles (#, if known 1,611)

Exposure pathway(s) Air, Ground Water

C. Constituent Release Information

Released Hazardous Constituents of Concern and concentrations (see 40 CFR Section 261 Appendix VIII and Section 264 Appendix IX): 1,2-Dichloroethylene, 1,1-Dichloroethane 1,2-Dichloroethane 1,1,1-Trichloroethane Trichloroethylene Chlorobenzene 1,1,2,2-Tetrachloroethane Tetrachloroethylene Chromium

Released Hazardous Wastes of Concern (listed/characteristic): F001 F003 F005 F006

Volume of Waste Released (if known):

N/A

Toxicity of Waste (if available from HRS package):

Acetone = 2 MEK = 3 Methylene Chloride = 2 Copper = 5 Nickel = 5 Lead = 5 TCA = 2 ~~Chromium~~ Cadmium = 5 TCE = 3

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III. SITE ENVIRONMENTAL PRIORITY (cont.)

Comments/Rationale:

Site has scored high due to known contamination of soil and site specific factors of exposure.
More site characterization needed to determine if actual problem exists.

IV. RCRA PERMITTING STATUS

A. Contact Person(s):

	Name	Date Contacted	Phone	Agency
1.	Tom Canaday	9/3/91	744-2070	EPA-Permits
2.	Ray Campbell	7/20/90		State-Permits DHS Region 4
3.				RWQCB (CA only)
4.	Steve Pilkington	7/20/90		Other (specify) Hughes Aircraft
5.				

B. Current Status (mark all applicable):
Instructions: For source, indicate file document or numeral for contact person listed above.

✓ Operating RCRA TSDF; Source: #4

_____ Not Operating RCRA TSDF; Source:

_____ Bankrupt Facility; Source:

_____ Non-Notifying TSDF - should be a RCRA TSDF but didn't submit a Part A permit application
Source:

_____ Generator only - never operated as a TSDF
Source:

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IV. RCRA PERMITTING STATUS (cont.)

B. Current Status (cont.)

Corrective Action in (draft) Permit Y N NA

(Expected) Post-Closure Permit Issuance Date:

_____ Combination: some units closing, some seeking permit (i.e. partial closure). Source: Explain:

_____ Part A Withdrawal Candidate; Source: Explain:

_____ RWQCB Waste Discharge Requirements requiring investigation and/or remediation in Effect (CA only)

Other Comments:

- Facility has requested regulatory guidance and oversight from DHS Region 4 as they go through closure. DHS has currently reviewing closure plan. ~~not responded yet.~~
- Facility did not ~~submit~~ submit Part B renewal: Trying to switch to generator-only status.
- Facility used chemical storage area under interim status until '85 when they used a new storage area that was permitted June 28, 1985

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V. OTHER REGULATORY ACTIVITIES RELEVANT TO CORRECTIVE ACTION (cont.)

___ State Enforcement Action with Activities Relevant to Corrective Action; Source:
Date:
Explain:

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Explain: On 10/29/86, the facility reported a leaking gasoline UST. A OCHA inspector observed the removal of the LUST. A small amount of contam. soils were observed and sampled. Results indicated ND for BTXE, although 116 ppm of tph were recorded in the sample. Due to the small amount of contamination, the inspector did not require any borings or wells. It is not known if the small amount of contam. soil was removed.

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VIII. **RECOMMENDATION FOR FURTHER ACTION** (mark all applicable)
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_____ Refer to CERCLA for further follow-up.

_____ Facility unwilling or unable to perform corrective action (explain in Section VII)

_____ Other (e.g. mining waste, active superfund site, generator only, etc.) Specify:

✓ No further CERCLA action

If negotiations w/DTSC fail, pursue RFA 3(h) order.

✓ Conduct an RFA

✓ as prelude to expected corrective action order

_____ as prelude to permit issuance

_____ Use a 3007 letter to obtain more information regarding the following items (a subsequent recommendation must be made after the information is received):

✓ Negotiate 3008(h) Consent Order
- Must have documented or probable release of hazardous wastes or constituents
- Must be a RCRA TSDF that has interim status (i.e. not yet permitted, including illegal TSDF that should have had interim status.
- For California, must <u>not</u> have a permit issued by DoHS between 1/13/83 and 11/8/84. Permits issued by DoHS between 11/9/84 and 1/31/86 are considered partial RCRA-equivalent permits; with respect to corrective action, facilities permitted between 11/9/84 and 1/31/86 have interim status.

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VIII. **RECOMMENDATION FOR FURTHER ACTION** (cont.)
(mark all applicable)

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_____ Incorporate corrective action into permit through 3004(u) and (v).

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The facility is a FY 1992 RCRA Grant Commitment.

_____ No further RCRA action at present; re-evaluate next year.

_____ No further RCRA action.

~~X~~ _____ Other (specify):

Negotiate with DHS to include this site into FY-91 workplan — possibly to switch this site with another that is more benign.

Comments: ~~As an alternative~~ we could try the following, which may be less costly.
H-3-2 Suggested is the following steps:
1. Immediately negotiate with DHS to have Region 4 oversee the closure at this site. Have state determine if facility will allow contamination concerns in PA/SI to be addressed as part of closure
2. If state does not agree to include in FY91 workplan, or if DHS encounters unexpected resistance of Hughes, then EPA should lead and prepare RFA and 3008(h) order.

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VIII. RECOMMENDATION FOR FURTHER ACTION (cont.)

✓ Recommendation Accepted

Karen Schwinn 8/23/90
Karen Schwinn
Chief
Waste Compliance Branch

When applicable, entity to perform RFA:

_____ State

_____ FIT (CERCLA)

V ? contractor (RCRA)

_____ Other; specify:

cc: Virginia Cummings, EPI Superfund Liaison, H-8-1
Jesse Baskir, EPI Coordinator, H-4-4
Jim Breitlow, Permits, H-3-2 ~~(when appropriate)~~

pamemfrm.epa revised 4/20/90

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

SEP 16 1991

MEMORANDUM

SUBJECT: Reevaluation of PA Review for Hughes Aircraft, Irvine (CAD 076 071 737)

FROM: Frank R. Gardner
Environmental Engineer

THROUGH: Nancy Lindsay
Chief, Corrective Action Section

TO: Karen Schwinn
Chief, Waste Compliance Branch

This memo is a status update for this facility which was determined a high priority site in the Preliminary Assessment Review conducted on August 1, 1990. The reasons for this determination included a known release to soils and potential subsequent release to ground water. The recommended actions included (1) negotiating with DHS to oversee RCRA closure of the facility as a RCRA Grant Commitment and (2) having the state conduct an RFA. If DHS did not agree to take on the site, a 3008(h) order was recommended. The site is a RCRA Grant Commitment for the period 10/1/91 - 6/30/92. The DHS Project Officer for the site is Sharon Lemieux. (213/590-4895).

The documented and potential releases at the facility are both associated with the facility's "Pre-1985 Chemical Storage Area" (SWMU 5), a regulated unit which was used during interim status to store drummed hazardous wastes for over 90 days. According to correspondence between the facility and one of its consultants, a closure plan was submitted to DHS in 1986 for SWMU 5, but neither DHS, RWQCB, nor EPA have any record of such a plan being submitted, let alone approved. Therefore, this inactive unit has not yet been closed.

The facility wishes to obtain generator-only status and submitted a closure plan for the facility on May 16, 1991. DHS is currently reviewing this closure plan and is planning to address contamination associated with SWMU 5 during the closure process. However, this closure plan currently addresses only the "Current Chemical Storage Area" (SWMU 1), the regulated unit currently used to store drummed hazardous wastes.

Ms. Lemieux asked me if DHS could require that the closure plan be modified to also address SWMU 5 and its associated contamination. After consulting with Jesse Baskir, I determined

that in order for the facility to obtain generator-only status, all (both) regulated units at the facility must be certified closed in accordance with an approved closure plan. Since this process has not occurred for SWMU 5, I advised Ms. Lemieux to request its inclusion in the closure plan.

Since DHS is currently addressing the contamination identified in the Preliminary Assessment through the closure process, I believe that no further RCRA action is currently required. However, the priority of the site should not be lowered and the status should be reviewed again in one year to determine the progress of DHS actions.

The following summarizes my current recommendations:

1) Maintain as a high priority site.
2) Defer to DHS, who will address the site through closure.
3) Reevaluate the site during FY'92.

Karen Schwinn
Recommendation Approved
Karen Schwinn
Chief, Waste Compliance Branch

9/13/91
Date

cc: EPI File

Frank -
If regulated unit has contaminated gw, facility may need a post-closure permit & therefore won't be able to convert to generator status
KS

FY 1992 RCRA Grant Commitments
SCHEDULED COMMITMENTS ARE FROM 10/1/91 TO 6/30/92

Sharon Lemieux 1895

REGION 4

08/15/91

FACILITY NAME	FACILITY ID	RANK	GRANT	CARRY	SIZE	PERMIT TYPE	PERMIT EVENT NAME	SCHEDULE DATE	ACTUAL DATE	STAFF HOURS
— Hughs Aircraft - Irvin	CAD076071737	1	T	F	S	TREAT/STORE CLOSURE	INITIAL REVIEW	03/31/92		20
		1	T	F	S	TREAT/STORE CLOSURE	TECHNICAL REVIEW	03/31/92		80
		1	T	F	S	TREAT/STORE CLOSURE	DRAFT CP	04/30/92		69
		1	T	F	S	TREAT/STORE CLOSURE	FINAL CP APPROVAL	06/30/92		16
— Hughes Aircraft - Long Beach	CAT080012867	1	T		S	TREAT/STORE CLOSURE	CALL-IN	12/31/91		11
Size?		1	T		S	TREAT/STORE CLOSURE	INITIAL REVIEW	12/31/91		20
		1	T		S	TREAT/STORE CLOSURE	TECHNICAL REVIEW	12/31/91		80
		1	T		S	TREAT/STORE CLOSURE	DRAFT PERMIT	02/28/92		69
		1	T		S	TREAT/STORE CLOSURE	FINAL CP APPROVAL	04/30/92		16
~~Hughes Aircraft~~ New Port Beach	~~CAD057468944~~	~~1~~	~~T~~		~~S~~	~~TREAT/STORE CLOSURE~~	~~CLASS I T/S CLOSURE MO~~	~~06/30/92~~		~~240~~
	Not 'High' priority.									
— Hughes Aircraft - Torrance	CAD981440068	1	T		S	TREAT/STORE CLOSURE	CALL-IN	12/31/91		11
Size?		1	T		S	TREAT/STORE CLOSURE	INITIAL REVIEW	12/31/91		20
		1	T		S	TREAT/STORE CLOSURE	TECHNICAL REVIEW	12/31/91		80
		1	T		S	TREAT/STORE CLOSURE	DRAFT PERMIT	12/31/91		69
		1	T		S	TREAT/STORE CLOSURE	FINAL CP APPROVAL	03/31/92		16
— Kinsbursky Brothers	CAD088504881	3 ~~2~~	T		S	TREAT/STORE PERMIT	RFI OVERSIGHT	12/31/91		80
		3 ~~2~~	T		S	TREAT/STORE PERMIT	RFI REPORT REVIEW	03/31/92		88
— Laidlaw	CAD000633164	3	T	F	L	LAND DISP PERMIT	FINAL DETERMINATION	12/31/91		232
		3 ~~2~~	T	F	S	LAND DISP PERMIT	RFI OVERSIGHT	06/30/92		80
		3 ~~2~~	T	F	S	LAND DISP PERMIT	RFI REPORT REVIEW	06/30/92		88
— Laidlaw (Existing)	CAD000633164	3 ~~2~~	T	F	L	LAND DISP PERMIT	PERMIT MAINT. - Q2	12/31/91		52
		3 ~~2~~	T	F	L	LAND DISP PERMIT	PERMIT MAINT. - Q3	03/31/92		52
		3 ~~2~~	T	F	L	LAND DISP PERMIT	PERMIT MAINT. - Q4	06/30/92		52
~~Nutco~~	~~CAD083914911~~	~~1~~	~~T~~		~~M~~	~~TREAT/STORE CLOSURE~~	~~INITIAL REVIEW~~	~~12/31/91~~		~~28~~
Size?		~~1~~	~~T~~		~~M~~	~~TREAT/STORE CLOSURE~~	~~TECHNICAL REVIEW~~	~~12/31/91~~		~~128~~
		~~1~~	~~T~~		~~M~~	~~TREAT/STORE CLOSURE~~	~~DRAFT PERMIT~~	~~03/31/92~~		~~108~~
		~~1~~	~~T~~		~~M~~	~~TREAT/STORE CLOSURE~~	~~FINAL CP APPROVAL~~	~~06/30/92~~		~~28~~